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THE STATE AND THE PUBLIC SCHOOLS

TWO YEAR'S PROGRESS IN EDUCATION

IN

IN WISCONSIN

C. P. CARY

State Superintendent

Edited by

CECILE WHITE FLEMMING

Assistant Supervisor of Educational Measurements

BIENNIAL REPORT

1916-1918.

W. S. C. A. 1
STATE DEPARTMENT OF PUBLIC INSTRUCTION

Madison, Wisconsin

1919

Dep
S. M. C. A.



Washington Junior High School—Kenosha.

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LETTER OF TRANSMITTAL

Department of Public Instruction
Madison, Wisconsin.
December 19, 1918.

HON. EMANUEL L. PHILIPP,
Governor of Wisconsin.

Sir:—I have the pleasure to submit herewith The Director's Biennial Report of the Department of Public Instruction. I trust that in this report you will find an accurate summary of school conditions in Wisconsin and an illuminating, even necessarily brief, review of the outstanding facts and educational progress of our state for these two years.

Very respectfully yours,

C. I.
State Superintendent

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1918-19

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Clinical Psychologist and Supervisor of Exceptional Classes

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EDITOR'S PREFACE

The biennium just past has been a significant period for the history of educational progress in Wisconsin. It has been a time of extra-activity, from the smallest one-room school to the University and for every school worker from the youngest teacher to the state superintendent.

The schools of America have been on trial, in the great national emergency, as working agents for our democracy. Their product has undergone the most severe test to which the results of American education have ever been subjected. At the time of our entrance into the war we were not quite sure how much more than a mere dream in the minds of the men who framed the constitution was the American ideal of the right of men to life, liberty, and the pursuit of happiness. But the war has shown us clearly and beyond doubt that though an ideal yet unrealized for all of us, it is yet a potent ideal for most of us. It is a basis for practical achievement for ourselves, and a stimulus to nation-wide service for the welfare of the world.

The world emergency has proved the reality of our emotion, the sanity of our intellect. Its demand for quick, adequate thought, and for prompt conclusive action, has tested public education with a new rigor. It has shown us our strength. It has revealed our needs and our weaknesses. But the revelation leaves us unafraid. We have seen that our system does create ideals and converts them into living realities. Boys and girls, men and women, have met the rigorous test; efficient, clear-seeing, quick-acting. The children in the schools have expressed ideals of patriotism and service by serving. This service itself has brought to the minds of the entire nation, as to the allied nations, an enlarged conception of the function and service of the school. We have proved that through it we not only acquire knowledge, gain technical skill, and develop intellectual power but that we create new ideals and clarify old ones. The hour of crisis has shown us the value of some things already achieved. It has encouraged us in the light of a great need to increased effort for certain improvements. It has revealed to us other vital needs which must be met in a larger way than before if we are to enable our children effectively to meet the demands of reconstruction.

The importance of the present period for education with its stimulation to growth and its dangers to progress makes it peculiarly a time to emphasize whatever real contribution Wisconsin schools have made during this biennial period to the better education for democ-

racy; to show clearly the several kinds of progress we have made; to indicate weaknesses and outline remedies; and finally to consider the lines of development to be emphasized for the future. The biennial report of the state department of public instruction for Wisconsin is limited by law to its present length. In determining upon the form of report presented in this volume, the editor realized that anything approximating an adequate summary of the more important factors in school development, accompanied by a pointing out of present and future needs, would require at least the space that has been accorded. Lack of space precludes the interpretation of additional statistical tables and a comparison of certain features in Wisconsin's situation, as shown in the tables, with those in other states. Such a comparison would have been serviceable. Additional graphs would have added to the clarity of the presentation; it has been necessary to indicate comparisons chiefly by percentages except for the 47 tables which are used to verify the discussions of school conditions. Lack of space prohibits also the inclusion of many records of individual counties and cities and as frequent intra-state comparisons between counties and cities as desired. However, the annual city and county reports and the complete records made therefrom are kept on file in the state department of instruction.

This report is a cooperative effort both by necessity and by choice. The editor was asked to become chiefly responsible for it at so late a date that but a few weeks, rather than months, remained for its completion. It is not possible for one person to prepare such a report in its entirety in a few weeks. But even though the entire biennium rather than three months had been available for the task, the editor would still have believed that this consideration of school progress should be the cooperative effort of the entire department which is charged with the active supervision of the state system of public schools. The man responsible for a given field of work, who is keenly interested in the development of that work for a long period, has a detailed, concrete knowledge which no other member of that department can possess. He is best fitted to evaluate various elements in the development of a given period and to make constructive suggestions for improvement. It was this belief that prompted the request that the several members of the department contribute to the report the chapters which are credited to them. The editor wishes to express her appreciation of the spirit of cooperation shown by the entire department throughout the preparation of the report. Without such an attitude the task could not have been completed within the required time.

Inasmuch as the biennial report is compiled from the individual records of several thousand teachers and school officers the task of making the final figures as nearly accurate as they can be made is one requiring careful and persistent follow-up work. An unusual effort has been made this year to check and verify the original reports. All possible authorities and sources have been utilized in the desire to

correct any suspected record. The detailed and accurate knowledge of the department supervisors with whom repeated conferences were held, aided greatly in reconciling conflicts that frequently occur in several records, under different headings, of the same item; for example, the number of teachers.

Credit for tireless and persistent effort for accuracy must be given to Miss Elizabeth Higgins who aided in the compilation of data. Her assistance in supervising the work has been invaluable.

The editor would also acknowledge her indebtedness to the clerical assistants who aided in the routine work, and to the many superintendents whose prompt reports and courteous attention to inquiries greatly facilitated the completion of the biennial report.

CECILE WHITE FLEMMING.



STATE GRADED SCHOOL, ALASKA, KEWAUNEE CO.

For description see page 78

FOREWORD

EDUCATIONAL CONSTRUCTION AND RECONSTRUCTION

The public schools of the nation are passing through a critical period. Before the present war came upon us, we were passing through a series of important changes, most of which have been accentuated sharply by the war. Two or three of the more important aspects of the situation will be here briefly discussed.

THE TEACHER PROBLEM

Notwithstanding all the efforts we were making in Wisconsin to train teachers in our training institutions, including certain high schools, county training schools, state normal schools, private colleges, and the state university, we were succeeding only to a degree. We were not turning out enough trained teachers to fill all the vacancies that occurred. Worse still, many of those who were turned out with diplomas from our training schools were persons of mediocre ability. Many, it must be admitted, lacked vision and seriousness of purpose, with no intention of continuing long in the business. There has been a great scarcity not only of teachers to fill the ordinary positions in the classroom, but there has also been a great scarcity of suitably trained and capable men and women to fill the larger and more important positions, such as state graded school principalships, principalships in the villages and smaller cities, supervising teachers, county superintendencies, high school principalships, and city superintendencies.

The people at large have seemed to accept this condition of things without much, if any, protest. Many school boards have seemed to think that a teacher is a teacher; if she has a diploma from some institution or a license to teach she is qualified to fill almost any position and is as good or about as good as any other teacher.

It is difficult for most people to see that the quality of any article of purchase may be steadily deteriorating. It takes a good while for the ordinary consumer to discover that his favorite brand of coffee or his favorite kind of plow is really not of as good quality as it used to be. In the case of teachers' services, there is a presumption to the effect that there ought to be, hence must be, a steady improvement. Everybody knows that we are spending more money than we used to spend in the training of teachers and the assumption that they ought

to be improving is perfectly natural. Unfortunately it by no means follows. The persons who are receiving the training may, upon the whole, be persons of inferior native ability and personality.

A few years ago the president of a normal school in the East made the remark that in his school the mental caliber of the young people who presented themselves for training had deteriorated until it had reached a low level. With such students this normal school was not able to succeed as it had succeeded in former years. The low mental capacity of many of the students prevented them from grasping the instruction quickly and easily and also prevented the development of enthusiasm and high purpose. Many of his students were apparently not much above high-grade morons, in other words, persons who never develop in intelligence beyond that exhibited by the average girl in her early 'teens. There is no question that such conditions prevail in some parts of the East. They are making teachers out of timber that may be called hemlock as compared with the white pine and oak of an earlier day. The condition in the Middle West is not so acute; but we have felt it to a degree, and are in a way to feel it much more acutely as time goes on, if something is not done to change the conditions.

The reader at this point may wish to know, if such conditions come stealing upon us unobserved and without our realizing it, what is the root of the trouble? This question can be answered in a single word, *money*. From the country school to the graduate school in the university, with rare exceptions, we have been paying teachers less and less money as the years have gone by. But the reader may reply, "Have we not been increasing salaries?" Yes, in an extremely conservative and modest way, we have. But the increase in salary has not gone on in a way to overbalance the decreasing value of money. A dollar, as the reader must know, varies in value according to the amount of goods it will purchase. A dollar today will not buy more than half as much on the average as it bought a few years ago, but salaries have not doubled as they would have had to do, in order that they might really have remained the same in purchasing power.

Business in one way or another is calling loudly to young men and women of ability who a few years ago would have directed their thoughts toward teaching. Just now, it is needless to say, the war situation is calling from the schoolroom scores of men and women, many of whom are among our most efficient. In the teaching world, it takes money to buy the best just as it does in the business world. Today there are many school men and women who have reached middle life or beyond who are continuing in the business of teaching because of a sincere love for it or because they do not wish to make new adjustments. But the ambitious and capable among our young people are not looking forward to teaching,—at least not in large numbers.

And yet who among rational men and women would dare to say that the future of this country will be safe in the hands of teachers and supervising officers whose mental capacity is down to the level of

mediocrity? It requires talent in teachers to develop properly the native talent of the young, and a nation or people who are unwilling to pay for the services of teachers of large native ability and good training must content themselves in the future to allow their children to come in contact during their most impressionable years with a type of mediocrity that falls short of inspiration, insight, and power. There can be no question in the minds of thinking people that such a condition would ultimately result in a low grade of national efficiency as compared with what might have been if a more liberal and inviting policy had been pursued with the teaching body.

We are at a crisis in this respect, even if we eliminate all consideration of the present shortage of teachers due to the war which we assume has now ended. What has here been said could just as truly have been said had there been no war, and it can just as truly be said after the war is over.

EDUCATIONAL REORGANIZATION

Educational reorganization was going on before the war in many parts of the country, and particularly in Wisconsin, with a rapidity that was very gratifying to all progressives in education. Of course, it must be borne in mind that education is essentially a conservative sort of enterprise and not given to violent and sudden changes. Ordinarily it proceeds by evolution,—not revolution. Some of the changes that have been in progress for a decade or more are the following:

Elementary Schools Free to Serve Largest Number

The schools have fought themselves free to a large extent from college and university domination so that they are now able to study their own needs and put into operation courses of study and so operate the schools as to be of the largest benefit to the largest number, instead of making the one end and aim of the school, especially the high school, preparation for college and university.

The High School Liberalized

The domestic science courses, manual training courses, particularly courses that were quite definitely prevocational (if not vocational), commercial courses, agricultural courses, and possibly others have been introduced. The high school in Wisconsin within a decade has been greatly liberalized and has to a large extent shaken off the shackles that had previously interfered with the administering of elective courses having an immediate practical bearing upon future employment.

The Continuation Schools

The leading school men of the state united some years ago in securing continuation and part-time schooling for pupils who drop out of school as early as the law permits, or soon after. These schools

were developed in the first five years in a manner that was not only highly gratifying to those immediately concerned with their development, but in a manner that attracted the favorable attention of the entire country. Notwithstanding the fact that Wisconsin was far less a manufacturing state than many of the eastern states, speakers in meetings of vocational education workers were accustomed to give Wisconsin the credit for leadership in the nation.

Work of the Schools Less "Bookish"

In both country and city schools there has been a steady effort for the past decade and a half at least, to make the work of our public schools less "bookish" and to connect up more fully with the environment of the children as relating both to nature and to man. It has been the effort (so far as it has been possible to induce teachers to do it) to teach pupils to use their knowledge as rapidly as it is gained. If they are taught rules of health a part of that teaching is the observation and practice of those rules. If they are taught about English they are taught to use English. If they are taught about parliamentary usage they are given experience in parliamentary practice. It takes a long time to wean teachers away from the habit of merely teaching the contents of a book with the end in view of lodging material in the memory of the student. To teach pupils to *use* knowledge is where the "rub" comes as a rule, but our schools have been making great progress in the art of actually teaching so that the outcome is power to do, to execute.

Health Progress and Needs

Our schools have been making headway on health programs though the progress was sometimes discouragingly slow. We have made persistent efforts during this entire period to secure adequate medical inspection of pupils, to obtain dental clinics, and city and county nurses. The opposition that such efforts and movements have met in the legislature and from lobbyists has been, to say the least, distressing from the point of view of those who saw so clearly the great and urgent need for such things. While the teaching of hygiene in the schools has greatly improved from the point of view of getting children to observe the laws of hygiene, we still have before us a difficult task in securing the kind of service that might be rendered the young by nurses and medical inspectors. It is to be hoped that the coming legislature will take radical steps to remedy this defect. Certainly we have had an object lesson growing out of the medical inspection of our young men in connection with military service.

Provision for Exceptional Children

We have made large strides in the direction of determining the needs and providing for the welfare of pupils in our schools who are somewhat different from the general average. Our schools in the past have been planned to educate children in classes of thirty or forty

and passing by annual promotion, or in some cases semiannual promotion, from one grade to another. It must be perfectly obvious to anyone that this wholesale dealing with masses of children with little attention to their personal and specific needs is a very crude way of proceeding. Gradually we are adjusting our system of schools in such a way as to take better care of those for whom the ordinary course of study and the ordinary method of passing from class to class is not the wisest or best. We shall always have to educate children in rather large classes in our public schools for the sake of economy. Nevertheless many efforts are in progress to make a better grouping of children from the point of view of their own welfare than has been attempted in past years.

Need and Economy of Supervision

We have made strenuous efforts to improve the supervision of the schools and in that respect have met with some success, although it is difficult to convince the people of the need and the economy of the right kind of supervision. It is a well-known fact that most teachers are not well prepared for their work, and do not plan to make it a life occupation. Changes occur with great frequency. This year, for example, about one-third of the teachers in our country schools are new in the county in which they are teaching. Not all of these new teachers are beginners. Some have come from other counties or other states, but to a considerable extent they are teaching their first school. Think what it means for a county superintendent and his assistants to give these people the right kind of help and at the right time and in sufficient amount. Suppose, for example, a well-to-do farmer had several farms and each one was managed by a man whom the farmer paid a salary for his services. How much attention do you think this farmer would want to give in the way of supervision of the men he thus employed? If a considerable number were new he would doubtless feel it necessary to see them every few days in order to make sure that things were going right; so it would be with a manufacturer if he were employing new men in large numbers, especially men who had had no actual shop experience. He would find it necessary to have a foreman looking after these men very thoroughly; and yet, we have in the past in thousands of cases in the State of Wisconsin put young boys or young girls into a school without any previous experience in managing a school and have allowed them to go on for months without help or suggestion from any source. No man would do a corresponding thing with his horses or cattle or sheep or hogs. Why is it we are so careless with our children? The salaries of county superintendents in this state are distressingly low, and the superintendents have not enough assistants or helpers to do the necessary work properly. Generally speaking, people have no conception of the splendid service that could be rendered to the children of a county through a proper development of the office of county superintendent. Our supervising teachers have fully demonstrated their worth, but the salaries

are too low for present conditions. Every county superintendent ought to have a good clerk who is also a stenographer. He ought himself to be on the road most of the time visiting schools, and he ought to have under his direction a county nurse, in addition to skillful supervisors.

Consolidation and High Schools

The opportunities, particularly of country and village boys and girls, to secure a high school education have been greatly extended and improved within the past few years. The significance of "consolidated schools" is that they give better opportunity for instruction in the grades and more especially that they offer, in their best type, high school facilities. Wisconsin has not made the progress that many states have made in consolidation, as that term is commonly used. We have, however, made persistent and laborious efforts in that direction. Our people showed opposition to consolidation to begin with that was vigorously hostile. The hostility has worn away and the sentiment is slowly changing. We are handicapped in many places by poor roads which are often an insuperable obstacle to consolidation on any large scale. However, as before stated, the increase in high school facilities and the division of labor in grade teaching has gone steadily forward in our State Graded Schools and in other types of schools. We have at the present time approximately 650 State Graded Schools in the state, many of which are doing some high school work.

Public Interest in Education

The reconstruction that has been going on, if one may so speak, in the minds of the people of the state, particularly in the country communities, regarding educational matters is a marked feature of our Wisconsin situation. We have held annual school board conventions, at least one in every county of the state, for the past thirteen years. At these meetings the problem of properly trained and competent teachers, regular attendance, the value of education, the worth of health, the duties of school board officers, the responsibilities of parents, the feasibility and value of the consolidation of schools, and scores of other practical and valuable topics have been ably discussed. The result, especially in the spirit and attitude of the people on educational matters, is truly gratifying.

Growth in High School Attendance

Attendance at high schools from country communities as well as in the cities has grown by leaps and bounds. At the present time about 45% of the children who graduate from the country school (that is, complete the country school course) enter high schools; while about 85% of the graduates of the eighth grade in our cities, on the average, enter high school. There is coming to be a feeling and a belief that all children who are capable of receiving such instruction should have high school training. One great difference between a country like

Prussia, for example, and Wisconsin is that in Prussia only about one-fifth of one per cent of the graduates of the common schools go to any higher institution of learning. Many of them secure a little training in the continuation school to fit them for the job they are to hold. A democracy in order to be safe must see to it that the rank and file of the people have much more education than can be obtained by the time the child is fourteen. Our compulsory education laws instead of permitting children to drop out at fourteen should not permit them to drop out before sixteen, and doubtless in the near future this change will be made in our statutes.

The Service of the State Department

Gradually the State Department of Public Instruction has grown and improved so that it is capable of rendering and is rendering very valuable service to the state. It is sometimes distressing to learn how little many of our people, even among the intelligent reading public, know about the duties, responsibilities, and services of the State Department. Service is its only excuse for being, and the service rendered is of a kind, quality, and amount that is difficult to explain to people without being offensively laudatory of our own work. Suffice it to say that the growth in the direction of genuine service is such as to fill with both surprise and gratification those who have in any adequate degree come in contact with it.

While many more things might be said in respect to changes that have been going on in recent years, the larger and more important matters have been discussed. It ought to be evident to the reader that *Wisconsin was getting ready for the war and after the war in an educational way ten years ago and more*. In other words, we were doing the things and planning the things that have proved during this war to be largely the sort of things that the public desired of the schools during the war period. We have been trying to make the schools as satisfactory on the side of practical efficiency and utility as we could under the circumstances. It is impossible to classify these matters under a single biennial period. They are of a continuous and developing nature. A number of new things occurring strictly within the past biennial period will be spoken of in other connections.

THE OUTLOOK FOR THE FUTURE

Much in the way of reconstruction remains to be accomplished. It is a fact well recognized that throughout the United States the actual work of the classroom is far below our highest ideals of efficiency. Teaching must always be done by human beings with their many imperfections and shortcomings. Nevertheless an increase of 50% to 100% in salaries would give a tremendous impetus in the direction of efficiency in a comparatively short time. It would probably be no exaggeration to say that doubling the salaries of teachers would in ten years' time quadruple the efficiency. All the common branches

would be taught much better and in less time; but the chief gain would be in the direction of calling out the latent possibilities, powers, ambitions and high ideals of the children and youth of the state, and preparing them for citizenship, and for an efficient and happy life. *The war has emphasized the value of education as nothing else could have done.*

It is perfectly evident that democracies need to spend much more money on education than do autocracies. Where people are self-governing all must be raised to a level educationally that would be entirely unnecessary under other forms of government. America has been rather slow to learn and to appreciate this fact. Probably we have not as yet shaken ourselves free from the European precedent, all too common, of cheap schools for the rank and file of people.

Our program for the future must include, in addition to much higher salaries for teachers, at least the following:

In the accomplishment of these ends nothing is of more importance than educational supervision sufficient in quantity and of a high type. This will involve more attention to the training of superintendents and supervisors in the future. Not only must the rank and file of teachers be trained more highly but supervision must be raised to the level of a profession with a corresponding preparation as a prerequisite and with salaries to correspond. All supervisors should not only be persons of superior intelligence and personality, but they should, from the educational point of view, be at least three or four years of training in advance of the persons they supervise.

1. Far greater attention to the health and physical vigor of our people, especially in the schools.
2. Greatly increased attention to, and effectiveness in, the teaching of all that goes to make intelligent and right-minded citizens.
3. Greater and more intelligent attention to the problems of vocational guidance.
4. Greater attention to the fitting of the rank and file of our youth for the occupations their interests and natural aptitudes incline them to follow.

CHAPTER I

WISCONSIN'S SECONDARY SCHOOLS

GROWTH

The phenomenal growth of the high school in Wisconsin which has been noted in previous reports has continued during the last biennium. Twenty-four new schools have been organized in the two years. The following tabulation shows the names and kinds of these schools.

New High Schools

Kind	1916-17	1917-18
District	Holcombe	Bear Creek
	Mishicot	Eleva
	North Freedom	Elkhart Lake
	Osseo	Freedom
	Reedsville	Gilman
	Spencer	Gordon
	Turtle Lake	Granton
	Wauzeka	New Auburn
		Webster
Consolidated	Williams Bay	Clayton
	Wrightstown	
Union	Taylor	Barkesdale
		Casco
		Laona

These additions bring the total number of high schools in the state up to 377, in which are included 296 districts, 13 organized under city charters, 65 union and 3 consolidated high schools. This means an increase in the number of schools during the last decade of approximately 40%. All of the old township high schools, of which there were 38 up to January 1, 1918, have now, through a revision of the high school law in 1917, been merged into union high schools, since the union high school law practically covered all of the privileges and benefits formerly provided under the township law.

The consolidated high school provided for under the laws of 1913 (Section 496—1), though undeveloped for three years after the law

was passed has now been organized in three consolidated districts as shown above.

ENROLLMENT AND ELIMINATION

While the number of high schools has been growing the number of pupils in high schools has increased with even greater rapidity. The total enrollment for 1917-18 was 52,328 which is an increase of 71% during the last decade. The increase of 1917-18 over 1916-17 is 3.6%.

The number of graduates is smaller than it should be considering the number enrolled in the first year. Out of 15,201 pupils entering high school in 1913-14 only 7,813 or 51.4% graduated four years later. This is shown in Tables 1 and 2.

From previous records adequate data for making elimination studies in high school have been lacking since the enrollment for each year of high school was not kept regularly. We now have almost complete data over a long enough period to permit a preliminary study, though data are incomplete for the year 1914-15. The following table shows the data available:

TABLE 1.—*Distribution of High School Enrollment*

Years	1913-14	1914-15	1915-16	1916-17	1917-18
Freshmen	15,201	No data	17,289	17,878	18,686
Sophomores	10,808	" "	14,322	12,929	11,427
Juniors	8,414	" "	9,906	10,366	10,174
Seniors	6,835	7,502	7,892	8,821	8,572
Special	368	No data	561	527	552
Graduates	6,285	6,700	7,054	7,813	7,769

From this table percentages on elimination may be calculated giving somewhere near correct results, though the lack of data for the year 1914-15 makes it impossible to follow a group of freshmen through a full four year period. A more satisfactory calculation will be possible with one more year of complete records.

TABLE 2.—*Percentage of High School Elimination*

		Per cent eliminated
No. Freshmen entering Sept., 1913	15,201	
No. eliminated during Freshmen and Sophomore years	5,295	34.8
No. lost during Junior year	1,085	7.1
No. lost during Senior year	1,008	6.6
No. graduating in 1917	7,813	
Total eliminated	7,888	48.5

Of the 17,289 pupils who made up the freshman class in September, 1915, 4,360 or 25 per cent were eliminated during the first year. Of the 12,929 sophomores, 10,174 or 59 per cent of the original group were left to begin the junior work according to the enrollment for 1917-18. 16 per cent were lost during the second year. The total loss for these two years was 41 per cent, a larger elimination than the corresponding two years' loss, of 34.8 per cent for the freshman class of 1913-14.

The second year class in 1913-14 enrolled 10,808 pupils according to table 1. Of these 7,054 or 64 per cent were graduated; the elimination during the sophomore and junior years being 28 per cent and for the senior year 8 per cent. Of the second year group for 1915-16, 14,322 pupils, but 7,769 or 54 per cent remained for graduation. To this large loss of 46 per cent, the sophomore year (1915-16) alone contributed 27 per cent, a loss equal to that for both the second and third years for the sophomores of 1913-14.

Thus the comparison of the two freshman classes, the one of 1913-14, the other of 1915-16, showing an elimination for the latter group of 41 per cent for the first two years as against 34.8 for the former, would indicate that during the last three years our high schools show a decreasing success in holding their pupils for graduation. The study of the two second-year groups revealing a three year loss of 46 per cent for the one as against 36 per cent for the class of earlier entrance would strengthen this belief.

BUILDINGS AND SANITATION

The ban on non-war construction during the last year has of course practically stopped all school building operations aside from the completion of buildings well under way. During the year 1916-17, however, about 43 new high school buildings were erected. These new buildings are for the most part of an improved modern type which is practically fire proof. Approved heating, ventilating and water systems are usually provided. All such buildings are now subject to the approval of the State Industrial Commission whose requirements have the force of law. The condemnation law passed by the legislature of 1909 has helped a good deal to stimulate the erection of new buildings.

Due to the holding up of building operations last year there is a call for an unusually large building program next year. Many buildings should be abandoned and new ones erected while many more should receive extensive repairs. In connection with these repairs there are several suggestions of especial importance. First, all furnace rooms should be surrounded by fire proof construction including a fire proof door which closes automatically; second, approved systems of inside toilets should be provided; third, a water system from a thoroughly sanitary source of supply should be provided wherever possible. This system should include bubble fountains on each floor for drinking purposes and connections for an adequate flushing system for the toilets.

QUALIFICATIONS OF TEACHERS

There is great need for a revision of our present law relating to qualifications of teachers for high school work. There has been no essential change in the general law for many years. Graduation from the University, from some approved college, or from a normal school course consisting of two year's work beyond the high school entitles candidates to the license and at the end of two years of successful teaching to the life certificate for high school teaching. Special licenses for manual training, domestic science, agriculture or commercial work are granted either on examination or upon completion of a two years' special training course in some normal or university. Holders of these special licenses are not qualified by law for high school principalships or for the teaching of other high school branches except by securing a special license for each branch to be taught. Licenses for these special subjects must be based either on examination or upon certified credits from some approved higher institution.

I am strongly of the opinion that two years of training beyond the high school provides inadequate opportunity for the mastery of subject matter and methods of high school work. There ought to be added to the present requirement at least another year of training and I am convinced from the experience and practice of other states that four years is none too much. The move of the Normals of the state to provide a three year course for high-school teachers was a move in the right direction and it is unfortunate there is question as to the legality of this plan. If the Normal Schools are to continue to train teachers for the high schools as they have in the past they should be expected to provide at least three years of training and four years would be still more desirable. Furthermore, the law should grant licenses only on completion of the more extended course. At present even though the longer course is offered there is nothing to prevent graduates of the two years' course securing the license and beginning to teach. Furthermore the license permits the teaching of any high school subject regardless of whether it was included in the normal course or not.

If two years of training is inadequate for general high school work, it is still more inadequate for vocational work. The training is sufficient neither for the vocational nor for the academic studies, especially the latter. Much confusion and difficulty have already occurred in the state in this matter, especially in the smaller high schools where it is necessary to ask vocational teachers to teach other subjects. Still more difficulty arises in schools having agricultural departments. Here the special teacher must often act both as principal and as director of the special course. Again, domestic science teachers have in a number of cases been obliged to give up their positions because they were unable to secure the license for academic subjects which they were required to teach.

Under these circumstances, I recommend that the present law relating to qualifications of high-school teachers be so amended as

to require all candidates for the state license to offer the equivalent of four years' training beyond the high school, taken in some normal school, university or approved college. Such modification should not apply to present successful teachers and it should not interfere with granting the state certificate on examination.

Attention should be called in this connection to the fact that Stout Institute at Menomonie has already by legislative enactment extended its course to four years in order to meet exactly this need. If the recommendation here made is carried out it would be necessary to extend the course for training high-school teachers in a similar way in at least a number of Normal Schools. Certainly the three year course for high-school teachers should be placed on a certain basis in all the Normal Schools or part of the Normals should provide a four year course leading to the degree of bachelor of pedagogy. I am inclined to favor the latter plan.

I would further recommend that four years of training be made the basis for the granting of all licenses to teach the special vocational subjects in the high school.

The following table shows the distribution of high-school teachers in the various training institutions:

TABLE 3.—*Qualifications of High-School Teachers*

Institution	1916-17	1917-18
University of Wisconsin.....	688	674
Normals of Wisconsin.....	760	833
Colleges of Wisconsin.....	436	304
Outside universities.....	201	212
Outside normals.....	57	51
Outside colleges.....	156	165
Stout.....	170	148
State certificates, on exam., etc.....	188	339
Total.....	2,656	2,726
Men.....	936	869
Women.....	1,720	1,857

As seen from the above table the number of men who are teaching in high schools of the state is just about one-third of the total number. The effect of the war in reducing this number in 1917-18 is plainly evident. Previous reports show that in 1900 forty-nine per cent of all high-school teachers were men, in 1908 the per cent was 35.3. The figures for 1916-17 show 35.5 per cent. It is not only true that the men are greatly in the minority but it is also true that comparatively few of them stay long in the profession. The indications are that little has yet been done to solve this important problem and that the teaching profession offers little of permanent attraction to the men. That this condition should be changed no one who has given the subject careful thought can doubt.

INEXPERIENCE OF TEACHERS THE GREATEST WEAKNESS OF OUR SCHOOLS

Many former reports have called attention to the short time in which the average teacher stays in any one position. School boards and communities are too ready to let good teachers go and teachers are too restless and eager for new positions. In no other profession or business could success be attained with such constant shifting. Previous reports of the State Superintendent have repeatedly called attention to this problem and while there may have been some slight improvement present reports do not indicate any marked change. The following table shows the facts for the last two years:

TABLE 4.—*Experience of High-School Teachers*

	Total Experience		Local Experience	
	1916-17	1917-18	1916-17	1917-18
1 Year or less	330	436	835	1,059
2 Years.....	386	322	614	508
3 "	294	280	394	290
4 "	268	230	253	183
5 "	201	223	136	121
6-10 Years.....	675	566	316	283
Over 11 Years.....	517	637	134	182
Unreported.....	35	32	26	100
Total	2,656	2,726	2,656	2,726
Median length of service.....	5.5 yrs.	5.8 yrs.	1.7 yrs.	1.6 yrs.

It is evident from this table that 1059 high-school teachers or 38.8% took new positions at the opening of the year 1917-18. Of these 436 or 16% began the year with no experience. What is still more significant is that more than half of all high-school teachers in the state have been in their present positions less than two years, while only slightly more than half have had over four years of total experience in teaching.

The two most important elements in the solution of this problem are the holding of a larger percentage of men in the teaching profession and higher salaries. These two really resolve themselves into the latter since the chief factor in holding the men is adequate salary. Higher qualifications for teachers is also a factor since this has much to do in determining salaries.

STATE AID FOR HIGH SCHOOLS

The amount of money available in the various appropriations for supplying state aid to high schools has long since become too small to carry out the original intention of the law. Each of the laws relating to general high school aid as well as those providing aid for special vocational courses fixes the aid as one-half the cost of instruc-

tion up to a certain maximum in each case. Due to the rapidly increasing number of high schools and also of the special vocational courses it has been necessary for a number of years to pro rate the amounts provided in the various appropriations. As a result the aid to district high schools was cut down last year to 72 cents on a dollar. The year before it was 77.5 cents and the year before that 87.1 cent. The aid for the special courses in manual training, domestic science, agriculture and commercial work has decreased to each school still more rapidly. For the last three years up to and including 1916-17 the pro rated amount on a dollar has been 80 cents, 68 cents, and 63 cents. Up to last year it has been possible to give the full amount of aid to the union high schools, but beginning with the present year this also will have to be cut down. This condition has resulted in much dissatisfaction and disappointment on the part of school officials and patrons who are led to expect a larger amount of aid than can actually be given. Under these circumstances it is urgent that larger appropriations should be made available.

The application of the law to the special agricultural course is particularly unsatisfactory. Actual farm practice in which each pupil carries on some definite productive project under careful supervision has come to be a required part of the work of an agricultural course in the high school. Practically all of the states offering special high school agricultural courses are united in this requirement. Experience has shown that this practical work cannot be carried through successfully without having a teacher employed during the summer months. On this account it has now become a definite requirement for receiving the state aid that the instructor be employed for at least eleven months including the months of June and July. This, increases the expense of this course.

Furthermore, the practical work demanded in this course is of such a nature that it requires a man of larger training and broader experience than most other lines of high school work. This calls for a larger salary. The nature of this work is such as to require much extra time on the part of the teacher outside of the regular school day in collecting material, acquainting himself with farm problems, conducting field trips and caring for any projects in operation. This kind of work is not open to the competition of women. All of these conditions surrounding this course demand higher salaries in this field than in most other lines.

I would, therefore, strongly urge the wisdom of increasing the aid for this course at least another hundred dollars above that granted to other special vocational courses. This amount is no more than should be allowed for the one purpose of helping schools who have this course to provide for the summer supervision by employing the agricultural teacher during practically the whole year. During the summer the teacher has a great opportunity not only to give adequate supervision to the practical work, but also to get acquainted with the farmers, study their problems, render help where needed and in short,

assume a position of leadership in the community in all agricultural matters.

REVISION OF HIGH SCHOOL LAW

Many additions and changes have occurred in the laws relating to high schools during the last decade. These changes have been made on the patch work plan. Much confusion and some actual weakness have resulted. Therefore, the whole law was revised at the last legislature. Only a few minor changes were made, however. Chief of these was the complete abolishing of the old provision for the township high school, which had become practically obsolete due to the fact that the new union high school law covered all of the former provision of the township law. Furthermore, the revision removed a technical uncertainty in the township law in the matter of raising funds.

Again a tendency had developed in some of the newer parts of the state to establish union high school districts in which too large a territory was included for the greatest convenience and fairness. To remove this difficulty the law was changed so as to make the maximum territory for such a district 72 square miles.

Another change relates to average attendance in all free high schools. The new law requires that no state aid shall be apportioned to any such district after it has been in operation four years unless the average daily attendance for the year is at least 15 pupils.

Finally, the provision of the union high school law requiring the school board to appropriate enough money to meet necessary expenses for running the high school for 9 months in case the district fails to vote the necessary tax has been extended so as to apply to all free high school districts.

SPECIAL COURSES

TABLE 5.—*High School Industrial Instruction*

	1916-17				1917-18			
	M. T.	D. S.	Agri.	Com.	M. T.	D. S.	Agri.	Com.
No. of Schools, H. S....	124	189	94	131	153	206	100	143
No. of Schools, Grade	10.	142	33	.....	150	183	39	.....
Total Pupils, H. S.....	6,431	9,040	3,679	10,648	6,404	9,407	3,711	11,325
Total Pupils, Grades...	8,138	9,704	1,319	.....	7,402	8,730	1,108	.....
Cost (including grades)	167,549	161,339	68,094	174,385	164,843	168,203	69,999	178,000
Per capita cost.....	11.50	8.61	13.62	16.38	11.95	8.94	14.52	15.71

These special courses have become more and more practical each year and are serving not only as a means of training young people in the line of some useful occupation and correlating hand training and concrete experience with the more academic subjects of the curriculum, but they are also providing most valuable vocational guidance by giv-

ing pupils opportunity to try out their interests and abilities in the direction of certain fundamental occupations. By offering these practical courses which make a strong appeal to the boy or girl at this period, the high schools have undoubtedly been able to hold an increasing number of pupils for the completion of the entire high school course.

AGRICULTURE IN HIGH SCHOOL

Agriculture has had an unusual development in the high school during the last two years and especially during 1917-18. Two new requirements which have been carried out already in a number of schools for several years, have now been made to apply to all the schools offering this course. The first requires that the agricultural teacher must be employed for at least eleven months including the months of June and July in order to provide adequate summer supervision for the project work. The wisdom of this requirement has been demonstrated by the experience of a number of years. Already before this requirement went into effect 48 schools were following this plan.

The second requirement introduces at least half a year of farm shop work into the first year of the agricultural course. For next year this must include woodwork adapted to the needs of the farm. On the year following forge work will also be required. This extends the number of units required in the special subject from three and one-half to four units; the elementary science being no longer counted as agricultural work, but rather as a part of the general course. Furthermore, the project work has been counted as a definite and required part of each year's work, excepting the last when it has been made optional with the pupil. One-half credit per year is counted for this practical side of the work, making one and one-half credits for the three years. This is required in this course in addition to the regular sixteen units required for graduation. At the same time work done during the summer vacation is counted for definite credit.

Again the school agricultural exhibit is now a practical requirement in all the schools. In 1916-17 forty-five schools held such an exhibit while in 1917-18 sixty-nine exhibits were held.

The school plot is used in many schools but is not required. Last year such a plot was used in about one-half of the schools offering this special course. The size varied from a garden patch 60x100 feet to a twenty-five acre school farm.

More careful reports have been called for on the project work during the last year than ever before. These reports are collected at the close of the farm season after the exhibit has been held. A detailed list of projects assigned and a summary of results for each is included. The summary shows gross and net profits, time devoted to the work and number of inspections made by the agricultural instructor in each case. These reports collected this year for the first time have greatly emphasized the necessity of summer supervision in se-

curing effective results. Under this plan of reports 2166 individual projects have been reported from 62 schools. Twenty-three other schools are not here included inasmuch as they were included in a special cooperative plan to be described in a later part of this report.

An important accomplishment of last year in meeting the problems of this field was the calling of the agricultural teachers of the state together for a conference at Madison on January 10-12, 1918. As an outcome of the meeting a permanent organization was effected under the name—"The Wisconsin Agricultural Education Association".

The practical side of the work was also given a great stimulus by a special cooperative plan involving the State Department of Education, the State Agricultural College and the U. S. Department of Agriculture. By this plan twenty-five of the high school agricultural directors were appointed special club and project leaders for a given district. Through federal cooperation each school represented was given \$250.00 special aid on condition that the director should give the work careful supervision during the summer vacation months and that an exhibit be held in the fall. The men working under this plan have accomplished wonderful results under the patriotic stimulus of the war situation. Over three thousand special club projects have been reported to the State Department from 23 of the 25 schools selected for this plan.

A further stimulus to practical results in agriculture has been the Young People's Agricultural Department of the State Fair. This department has been given active and enthusiastic support by the State Fair authorities during the last few years and rapid growth has resulted.

The stock judging has aroused special interest both among the students of the schools and among the stock men of the state. Liberal financial aid has been supplied by both the Fair Association and by the State Live Stock Breeders' Association. Furthermore, by the aid of the Live Stock Breeders' Association and through a plan of cooperation between the State Department of Public Instruction and the State Agricultural College a State Live Stock Judging Contest has become an annual event. This takes place at the agricultural college in February each year. High schools and county agricultural schools are included and from twenty to thirty teams have competed each year for a number of years.

That these high school departments of agriculture have been made more and more practical and efficient and that they have contributed much to the solution of the farm problem can not be doubted by any fair minded observer. There is much evidence that larger interest in rural life is being aroused; that better appreciation of farm opportunities is being developed, and that a large number of intelligent and well trained young people are going back to the farms filled with eager enthusiasm to try out the best methods and develop the best rural conditions. Not only are rural pupils going back to the farms but many city boys are gaining an appreciation of farm problems and are developing habits of thrift and industry through practical ex-

perience with animals and plants and through acquaintance with the soil. A considerable number of these city boys are even looking toward farming as a life occupation. In one city where an agricultural course had been in operation for seven years it was found that out of 75 pupils who had taken work in this course and who had already gone out into life occupations 35, or 47%, had entered some line of agricultural work. Reports on this point now being gathered from the whole state are not yet complete. However, from 14 reports already received mostly from high schools of the rural type, 115 pupils from the agricultural courses went out last year to take up farming as an occupation. The total number of pupils in these courses was 294.

The most important needs for this special course at the present time include the following:

1. Better trained and more experienced teachers.
2. Higher salaries.
3. Greater permanence of position.
4. Less teaching of academic subjects by agricultural teachers.

The shifting tendency of all teachers has had an especially bad effect upon the agricultural course for the reason that the time when changes are made is just in the midst of the season for most of the practical work. Furthermore, acquaintance with the agricultural problems of a community and close correlation of the school work with the farms, conditions absolutely necessary for successful work in this course, require a longer time than most other school adjustments. There is great need therefore that contracts with agricultural teachers should be made for at least a three year period. Such a contract should perhaps have the proviso that it can be terminated at the end of any school year by thirty days' notice from either party. However, such a contract would have the advantage of putting the presumption in favor of continuance and would prevent either party considering a change except for very urgent reasons.

Finally, there has been a tendency in the state to overcrowd agricultural teachers with too much teaching of other subjects. This has been partly because of the close relationship between the agriculture and the science subjects of the general course. It should be recognized, however, that if the agriculture is to have real practical value, it is necessary for the instructor to give a large amount of time to laboratory exercises, to the collection of material, to practical demonstrations and field studies on the farms, and to the projects on the farms or on the school plot. He should also spend much time acquainting himself with the problems of the community and identifying himself with its agricultural activities. This all requires not only a man of experience and training but demands also much time outside of the daily program of classes. The class program of the agricultural instructor should therefore be lighter than that of other teachers to give adequate time for this practical side of the work.

Boys' Working Reserve.

The schools of the state have played a large part in food production during the last year not only through the club and project work, which has been carried on in connection with the agricultural instruction, but in a more direct and quite as practical a way by assisting in meeting the labor problem on the farms.

The boys of the high schools were called upon to help meet this labor emergency. Under the direction of the Assistant State Superintendent, assisted by the State College of Agriculture and the school men of the state, the boys were organized as the Boys' Council of Defense League. Later this organization was merged into the U. S. Boys' Working Reserve. Approximately ten thousand boys, most of them in the high schools of the state, went out to the farms to assist in planting and harvesting the crops. By speeding up the regular school work the boys were allowed to go out as fast as their services were needed after April 15th. Special classes were organized in the schools for training the boys in actual farm practice, especially those who had had no farm experience. A special bulletin on "Organization and Training of the Labor Supply in the Public Schools" was prepared by this department and distributed to the schools. The bulletin made suggestions for speeding up the regular work and also presented an outline of farm practice, covering handling and care of horses, milking and caring for cows, use and care of common farm machinery, etc.

This plan not only contributed signally to the production of one of the greatest crops in Wisconsin's history, but it also provided a fine educational as well as patriotic opportunity to the boy and especially to the city or town boy, in gaining an appreciation of the farm, in getting a useful concrete experience and in securing valuable training in thrift industry and hard work in relation to the most fundamental of all industries.

DOMESTIC SCIENCE.

(See Chapter IV)

MANUAL TRAINING)	} See Chapter III.
COMMERCIAL WORK)	

MODIFICATION OF HIGH SCHOOL CURRICULA AND METHODS

High school courses of study have always been regarded as subject to more or less modification to meet the needs of changing life. Problems and demands brought about by the great war have emphasized and hastened such modifications. It is a source of great gratification to this department that the plans we were following and the goals we were aiming at seem to have been thoroughly in harmony

with and in anticipation of the changes which the war and the reconstruction period are now emphasizing.

During the last six months this department has sent out several special circulars giving concrete suggestions concerning changes which ought to be considered. Changes of the agricultural course have already been discussed. The following suggestions have been made regarding the general high school course:

1. Larger provision for an effective program of physical training and health.
2. Plans for more extensive and more vital treatment of citizenship and Americanization problems from the view point of present needs.
3. Larger and more practical study of modern science from the view point of the interests and experiences of young students. This should involve greater attention to the applications of science to modern industry and invention and less to theory and technical organization of subject matter and laboratory methods.
4. More attention to domestic science and agriculture in relation to home and community needs, a more practical kind of manual training and commercial work and especially more attention to social organizations within the school which tend to develop the social and cooperative spirit and to give power in debate and discussion and in the management of deliberative bodies.
5. Larger provision for development of music and art and all other activities which cultivate refined and wholesome means of expressing the emotional life.
6. More effort to point out to young people the nature and problems of the various employments, occupations and professions, together with the natural and acquired qualifications necessary for success in these employments,—in short, more attention to intelligent vocational guidance that will help young people to find the right place and avoid those misfits so common in a society where individual choice plays so large a part as in this country.

Further important modifications in relation to more effective methods of administration and instruction have also received marked attention within the last two years. First of all, as previously suggested, strenuous effort is being made everywhere so to vitalize all subjects of instruction that the work in school may actually function in relation to the practical problems of pupils and community outside. The war situation and the war problems have helped greatly in this direction. Current thought and materials have been utilized as never before in motivating and giving significance to the work in history, in geography and in civics. Inventions, scientific studies and industrial achievements connected with the war have given new life and interest to the science study in school. Activities of the Red Cross, war savings campaigns, welfare efforts, Boys' Working Reserve, and other war activities have aroused a new patriotism and have filled pupils with a new zeal in all their school work. This practical stimulus and motive must not be lost in the future now that war conditions have ceased to exist.

Again, the plan of "supervised study" has been developed in a large number of high schools. This plan has usually involved a lengthen-

ing of the recitation period and an accompanying extension of the school day.

In this connection reference should also be made to the plan of lengthening the school year so as to provide for a practically full year school. This would probably involve a four quarter plan so arranged that pupils might attend the full year or might combine two or three quarters' work in school with one or more quarters used as vacation or for work in some practical occupation. While such a plan might cost more in meeting necessary salaries and expenses for up-keep, at the same time, it would overcome what seems now an enormous waste when the large amount of capital invested in school plants is allowed to lie completely idle at the time of the year when it could be most economically operated.

Another distinct line of progress which has developed largely in the high school as well as in the grades is the application of standard tests and measurements as a means of judging school progress. Of course, it should be borne in mind in this development that with the increasing complexity of aims and values which accompanies approach to and entrance into high school work, there will necessarily be more and more results which cannot be reduced to arbitrary standards of measurement. Nevertheless, many results can be so reduced and in any case, the application of carefully studied and scientific tests even in high school is far more likely to be a safe guide to promotion and advance than the largely hit-and-miss personal and qualitative judgments which have formerly prevailed. A fuller discussion of this topic will be found in chapter IX.

CHAPTER II

THE JUNIOR HIGH SCHOOL AND ITS FUTURE IN WISCONSIN

For any important educational development that is to have permanent value considerable time and effort must be spent in preparation. By their very nature and purpose schools are essentially conservative institutions. For this reason they do not change readily. To effect any change at all it is necessary that educational leaders should have a clear vision and that they should lay their plans long in advance of any innovations which they wish to make.

PREPARATION FOR THE JUNIOR HIGH SCHOOL

In the state of Wisconsin this work of preparation for the introduction of the junior high school has been proceeding without interruption for the past few years. In only a very few instances has the new idea been embodied in actual organization. In a large number of places, however, boards of education and superintendents of schools have become convinced that the junior high school offers a much-needed opportunity for a reorganization of their schools. They are merely awaiting a return of normal conditions in the building trades in order that they may undertake the reconstruction of old buildings or the construction of new ones in harmony with their new purpose. In general it may be said that the attitude of superintendents, principals, and teachers is so favorable to the junior high school idea that there is good reason to expect a rapid increase in the number of junior high schools in the near future.

EXISTING IDEA OF JUNIOR HIGH SCHOOL INDEFINITE

There is still lack of agreement, however, concerning the definition of the term "the junior high school". In some cities the seventh and eighth grades are put upon a departmental basis with or without a change in the program of studies and are called "the junior high school". Though it is highly desirable under all conditions to reor-

ganize the seventh and eighth grades, there is strong likelihood that if the reorganization of the schools stops with these grades, there will be insufficient departure from the methods of the elementary school to warrant the application of a new name. The result will be merely an improved elementary school.

Likewise, there are several cities where the term "junior high school" is applied to the first three grades of a six-year high school, although these first three grades are not characterized by any special methods or any special type of organization that differentiates them from the last three grades. The six-year high school is an excellent institution, but it is not entitled to call its first three grades a junior high school unless they are a distinctive organization with characteristic program of studies, methods of teaching, and methods of discipline. The reason for this disqualification arises from the fact that the six-year high school almost surely will do little more than to carry down into the seventh and eighth grades the practices which have been associated with the senior high school.

A DISTINCTIVE ORGANIZATION

The only sure way to have a real junior high school is to give the seventh, eighth, and ninth, or the seventh, eighth, ninth, and tenth grades a distinctive organization. The new organization must recognize that it has problems of its own quite different from those of either the elementary school or the senior high school and it must undertake in a systematic way the solution of those characteristic problems. There are two good reasons for linking the ninth grade or the ninth and tenth grades with the seventh and eighth. The first of these is that these three or four grades constitute a group which is much more nearly homogeneous than that which the conventional grouping affords. The second reason is that the great gap which now exists between the eighth and ninth grades will disappear almost wholly when the eighth grade no longer is the climax of an educational ladder. The objection sometimes raised to the effect that the junior high school organization will make a gap between the sixth and the seventh grades in place of that which now exists between the eighth and the ninth loses its force when we remember that in progressive communities which have an "age and schooling law" pupils seldom are able to leave school at the end of the sixth grade.

When we say that the junior high school should have a distinctive organization, we do not mean that necessarily it should occupy a separate building. It is altogether possible to have a successful junior high school in the building occupied by the elementary grades, in the building occupied by the senior high school, or in a separate building. In other words, the success of the organization is not conditioned upon the nature of the building. Experience indicates, however, that the likelihood of success is greater when the junior high school occupies a building of its own where it may be wholly free to attack its problems without the restraints necessarily imposed by its close physical proximity to another organization in the same building.

There are certain factors of cost which need to be considered in connection with providing a building for a projected junior high school. Unless the new school can offer to pupils a more liberal program of studies than they would have under the conventional system, it will fail to fulfill one of its important purposes. Formerly the only kind of education that seemed of value was purely academic or "bookish". We have learned in recent years that the old idea was narrow and undemocratic.

ENLARGEMENT OF EDUCATIONAL OPPORTUNITY

There is no disposition anywhere among thinkers to belittle the priceless value of books in the education of the young by means of the record they give of the achievements of the race. Recent theory wishes merely to enrich the content of education by including within its scope certain elements that books alone do not impart. We are educated not only by means of books but also by contact with our fellow men, by contact with and manipulation of things, and by the activities in which we engage. The junior high school is committed definitely to this enlargement of educational opportunity. To provide this enlargement means increased expense of several kinds. It means among other things larger equipment and more numerous opportunities for expression. Shops and laboratories, rooms for art, and drawing, and music, and gymnasiums for physical training are all needed to fulfill this larger purpose. It is not reasonable to expect a small community to provide these additional facilities for a small junior high school in a separate building. Considerations of economy alone decree that these additional facilities shall be made available for the use of the other pupil-groups in the community. The same considerations require that the junior high school shall occupy the building used also by the elementary grades or that used by the senior high school. Since public opinion is already prepared to support generous equipment and facilities for the senior high school but not yet so ready to do the same for the elementary school, the writer considers that in view of the welfare of all the children in small communities it will be well, wherever local conditions will permit, to put the junior high school in the building to be occupied by the elementary grades in order that the elementary children may share in the advantages which this combination makes available. Larger communities having sufficient financial resources for the purpose will do well for the reasons already given to provide separate buildings and separate equipment for their children of junior high school age.

In connection with this matter of expense it should be said that in the state there are many small communities where the number of pupils who would take a four-year high school course is altogether too small to warrant the establishment of a senior high school. At the same time these communities are entitled to the advantages of the best possible instruction for their children until such time as these children are of sufficient age to make it safe for them to go away from

home for their advanced work. The junior high is admirably adapted to meet the needs of communities of small size where the four-year high school can not be established. For example, many State Graded Schools are situated in places where the expense of organizing a senior high school is prohibitive. These State Graded Schools might very well adopt the junior high school plan for their seventh, eighth, and ninth, or for their seventh, eighth, ninth, and tenth grades in order to secure for their pupils a type of education which promises to reduce elimination and to meet the social needs of the communities in a more adequate way than it is possible to meet them at present. The experience of Vermont in organizing junior high schools in small communities is gratifying evidence of the value of these schools to country districts as well as to cities. The testimony on this point is as follows: "As organized in Vermont, the junior high school covers four years, or the grades usually included in the seventh and eighth years of the elementary school together with the first two years of the high school. This so-called six-four-two plan may or may not be desirable in all communities. It is satisfactory for the small communities of Vermont because it brings at least two years of high school education close to the homes of the boys and girls and represents about the maximum that these schools can do effectively without additional teachers and a consequent expense that would be prohibitive."*

The question of expense, however, is by no means the only question to be considered in connection with the establishment of junior high schools. The fundamental question concerns the program of studies, the methods of teaching, and the social purposes of the school. Indeed, when a community becomes convinced of the real values inherent in the new school by virtue of the new opportunities which it affords and the new appeal which it makes to the interest of the children, the question of expense is likely to become quite secondary. Communities usually are willing to spend additional money when they know that they will receive adequate returns.

AN EXCELLENT INVESTMENT

Although the junior high school movement is quite new, there is already sufficient experience to prove that the public receives vastly more in return than it spends. All too frequently our schools have emphasized the "deferred values" of education. They have inculcated the idea that they were preparing children for the experiences of adult life. It is altogether fitting and proper that "deferred values" should come within the purpose of the school. They should not, however, be the exclusive purpose as so often they are. The junior high school does not make this mistake of undue emphasis. On the contrary it recognizes that boys and girls have a life to live in the present and that the more they find opportunities for the satisfaction of

* Milo B. Hillegas—"The organization of junior high schools in small communities," in *Teachers College Record*, XIX:4 (September, 1918), p. 337.

present interest and for the expression of social impulses characteristic of their age, the more likely they are to enter upon adulthood with joy, with zeal, with sharpened intellect, and with the will to serve. This is a social purpose which is finding its reward in the increased school attendance that the junior high school has been able to secure.

New methods of teaching, also, have a tendency to hold children in school. The junior high school seeks to break down the practice of teaching pupils *en masse* by having smaller classes, by giving more attention to the needs of individual pupils, and by teaching children how to study instead of merely assigning lessons which the pupils are expected to learn at home and to report upon in memoriter fashion the next day. There is much reason to expect that one of the big contributions of the junior high school to educational progress will be in the direction of improving the methods of teaching. Certainly no superintendent should undertake the organization of a junior high school without making every effort to incorporate the results of the excellent methods which some of the best schools of the new type have developed.

The real junior high school will have also a program of studies quite different from that which has been offered heretofore to pupils of the seventh, eighth, and ninth grades. Experience has not gone far enough as yet to enable us to decide whether pupils should be given a choice of curricula with rigid requirements within each curriculum; whether they should have free election from a large program of studies; or whether there should be a common core of required studies for all, with limited elections beyond. The time is not ripe for any dogmatic assertions in this connection. The best that can be done at the present time is to suggest a practicable plan suitable for incorporation in most schools that are of sufficient size to make the experiment. Very small schools will need to offer a somewhat more restricted program.

In order to meet the needs of the immediate future the Department of Public Instruction has formulated the following:

PROGRAM OF STUDIES FOR JUNIOR HIGH SCHOOLS

<i>Grade VII.</i>		
<i>Subjects</i>		<i>Hours per week</i>
Physical Training and Hygiene.....		5
English		5
Mathematics		3
General Science }		4
Agriculture }		
Social Sciences		
(History, Geography, Civics).....		4
Industrial Arts (for boys)		
(With Freehand and Mechanical Drawing).....		8
Household Arts (for girls)		
(With Freehand Drawing and Design).....		8
Music		1
Total.....		30

Grade VIII.

<i>Subjects</i>	<i>Hours per week</i>
Physical Training and Hygiene.....	5
English	5
Mathematics	3
General Science	3
Social Sciences.....	5
Industrial Arts (for boys)	
(With Freehand and Mechanical Drawing).....	8
Household Arts (for girls)	
(With Freehand Drawing and Design).....	8
Music	1
Total.....	30

Grade IX.

<i>Required Subjects</i>	<i>Hours per week</i>
Physical Training and Hygiene.....	5
English	5
General Science	3
Social Sciences	5
Drawing or Music	1

<i>Elective Subjects (11 Hours to be filled)</i>	<i>Hours per week</i>
Accounts	2
Agriculture	10
Bookkeeping	10
Design	2
Dramatics	2
Drawing	1
Foreign Language.....	5
Household Arts (for girls).....	10
Industrial Arts (for boys).....	10
Mathematics	4
Mechanical Drawing	2
Music (Appreciation).....	1
Music (Choral)	1
Music (Orchestra)	1
Salesmanship	2
Public Speaking	2

AFTER-THE-WAR REQUIREMENTS

In this program Physical Training and Hygiene, English, Natural Science, and the Social Sciences are required of all students in all grades. This requirement is in accord with the lessons which the war has taught us. We must expect everywhere in the next years an increasing demand for the incorporation of these fundamental subjects in the work of the schools. The departure from former practice in respect to foreign language and mathematics is believed to be likewise in harmony with the best recent opinion. It should be remembered, however, that the suggestions are offered in a merely tentative way until such time as more positive opinions founded upon scientific experimentation can be offered. Modifications to meet local conditions may be made very easily without impairing the general harmony of the program. For example, a foreign language might be offered in the

seventh and eighth grades in place of part of the requirement of Household Arts and Industrial Arts.

EXPECTATION

In respect to the junior high school the work of the past few years in Wisconsin has been for the most part a study of the problem and a preparation of public opinion. The time has now arrived for the projection of our ideas into practice. It seems likely that when the time for the next biennial report arrives, the junior high school chapter will be able to record the successful experience of many schools.



FIGURE 2.—School equipment being made in the manual training department of the Madison high school

CHAPTER III

INDUSTRIAL AND VOCATIONAL TRAINING

1. MANUAL AND INDUSTRIAL WORK

The future development of manual training work depends upon the broadening and the offering of courses other than those in woodworking and drawing. It is altogether too narrowing to have woodworking and drawing alone offered in our Junior and Senior high schools. The type of work,—including woodworking and drawing,—that is particularly suited for and will offer a real industrial foundation for junior and high school boys is one that will offer an opportunity to work with metals and is what might be called a general metal course. This general metal course should include sheet metal work, light plumbing work, electric work, machine shop practice, forge work, gas engine and automobile construction and repairs. There is undoubtedly an urgent need for such a course in our high schools.

Cement work should be in all country high schools. It should be considered as part of the woodworking course.

Metal work can be installed in our schools at no greater cost than woodwork. A good sized room might well be devoted to it. This room could contain all the equipment necessary to teach general metal work. This equipment would include two or three forges, a bench for metal work, some equipment for sheet metal, plumbing, electrical work (sufficient for three or four students, depending on size of classes), foundations for gas engines, and space for an automobile. The class could be so rotated and the work so arranged that all members of the class would be able to do some work on each particular equipment.

GENERAL INDUSTRIAL TRAINING VERSUS NARROWLY SPECIALIZED WORK

It is significant that the War Department is calling for men with a general industrial training rather than those who have had a narrow training in one particular line of work. It is true, of course, that there is a call for specialized work but nevertheless the call for men with the general training is much more urgent. A man with a general training can be easily developed in a particular line of work. This is

not true, however, of the man who has had a narrow industrial training in perhaps one highly specialized type of work.

The future industrial supremacy of the United States will depend largely on the work of the schools. It is essential, therefore, that we offer a broad industrial training in our grades and high schools that will serve as a solid foundation on which to build any future calling or vocation. Such a course should represent a broad general knowledge of industrial and vocational practice.

CONSTRUCTION OF EQUIPMENT FOR WAR ORGANIZATIONS

The manual training departments in most of our schools have been engaged at one time or another during the past two years in constructing equipment necessary for organizations such as the Red Cross, Y. M. C. A., and others connected with war activity. This equipment consisted in the making of packing cases, benches, tables, bedside trays, etc. Industrial methods were used in preparing this equipment, resulting in a high standard of workmanship. This type of work lent a democratic atmosphere to the manual training departments. Every worker had the feeling that he was making and doing something worth while, not for himself or for personal gratification but for others, thereby laying the foundation for real democracy.

PRODUCTIVE GROUP WORK

There has been a decided trend in manual training away from a formal type of individual work or problem towards group and productive work. This is a very desirable departure from a type that in the past has been overemphasized. Much equipment for the school system has been and is now being made in our manual training departments. The best commercial practice, in so far as school equipment and school conditions will permit, has been used in this production work.

The war has brought home to our industrial department new possibilities. Such work as has been undertaken for the Red Cross and other associations would have been thought out of place and impossible two years ago. A spirit of service, of sympathy, and of sacrifice has been developed in our industrial work. It has been found that a real joy can be obtained in helping others.

NEED FOR BETTER TRAINING OF TEACHERS

Industrial work is offered in very few county training schools. Yet there is a need for a strong course in this type of school. Graduates of these schools in many cases are expected to teach industrial work in common schools without any training in the work. We would hold up our hands in dismay if a teacher were to attempt to teach history without having had previous training in history, but often we expect a teacher to teach industrial work without having had any previous training.

The war has not been without its effect on manual training work. Thirty schools have had to give up manual training this year on account of being unable to obtain teachers.

TYPES OF INDUSTRIAL WORK IN OUR HIGH SCHOOL AND GRADES, 1917-18.

Number of schools offering drawing and woodwork and cement construction	11
Number of schools offering drawing and woodwork and metal work	13
Number of schools offering drawing and woodwork and forge work	15
Number of schools offering drawing and woodwork and electric work	2
Number of schools offering drawing and woodwork and printing and book binding.....	4
Number of schools offering drawing and woodwork and machine work	10

SCHOOLS OFFERING INDUSTRIAL WORK

Number of high schools and grades offering industrial work.....	153
Number of teachers giving full time.....	140
Number of teachers giving part time.....	26
Total number of teachers.....	166

Requirements

The minimum time requirements for industrial work in the seventh and eighth grades is eighty minutes per week. In the high school the requirement is three hundred and fifty minutes per week for two years. While in each case this represents the minimum requirement, it is urged that more time be given to this work.

COMMERCIAL WORK

Number of schools offering commercial work.....	143
Number of special teachers giving full time.....	146
Number of teachers giving part time.....	80
Total number of teachers.....	226



FIGURE 3.—*This house was built by the manual training department of the Chippewa Falls schools.*

2. COUNTY SCHOOLS OF AGRICULTURE AND HOME ECONOMICS

At the time of the last report there were seven of these special schools located in the following counties: Wood, La Crosse, Marinette, Dunn, Racine, Marathon and Milwaukee. At the close of last year the one at Wausau, Marathon county, was discontinued, leaving six still in operation.

The attendance as a whole has shown no very marked tendency either of increase or decrease during the last five years. The figures from reports indicate a small decrease during the last two years, but this is probably accounted for largely by the war conditions which are likely to affect these schools more directly than others. The total enrollment in all the six schools in operation last year for the years 1913-14 to 1917-18 is as follows: 498, 505, 527, 450, 386, successively. It should be born in mind in fairly considering these figures that they show only students in regular courses and do not include attendance at numerous short courses and adult classes which have been carried on both within and outside the school. It may perhaps be truthfully said that attendance has not grown as it was hoped by advocates of the schools and that this fact has been especially emphasized on account of the large amount of money which has been expended for equipment, for instruction and for other needs of the schools, and because of the large amount of aid which has been furnished by the state.

RESULTS OBTAINED

On the other hand, it cannot be doubted by any fair observer that these schools have accomplished a large amount of valuable work, both among the students in regular attendance and among the farmers of the counties represented.

The original idea connected with these schools was *that of a distinctly vocational school offering a two years' course beyond the eighth grade and leading its pupils directly to the occupation of farming. Accordingly, without exception two year courses were established at first in all the schools. However, it soon became apparent that neither pupils nor parents were wholly satisfied with such a course unless it articulated closely with the regular school system, so that pupils could go on to high school or even to the university if they so desired.*

The following table gives the data on these schools:

TABLE 6. County Schools of Agriculture and Domestic Science

1916-1917

School	Date of Organi- zation	No. Teachers, M. W. Tot			No. Pupils, B. G. Tot			No. Graduates, B. G. Tot			Non- residents			Received from State	Salary Principal and Assis.	Net Cost for Schools	Av. Daily Attendance
		28	12	40	304	146	450	71	40	111	61	13	79				
Totals.....		28	12	40	304	146	450	71	40	111	61	13	79	\$41,621.84	\$63,803.47	\$121,226.09	364
Grand Rapids																	
Marquette	1914	3	1	4	20	11	31	3	3	6	7	0	7	\$6,000.25	\$6,371.80	\$13,206.25	27
Menomone	1905	2	1	3	14	21	35	3	7	10	0	3	3	5,537.29	5,558.29	7,923.56	27
Onalaska	1903	4	2	6	40	18	58	3	2	5	6	1	1	6,000.00	10,156.02	14,732.57	42
Rochester	1908	3	3	6	39	26	65	10	3	13	18	2	20	6,000.00	8,362.52	15,919.63	53
Wausau	1912	4	2	6	59	25	84	20	16	36	6	3	26	6,000.00	6,530.00	11,193.09	60
Wauwatosa	1902	3	1	4	26	16	42	9	4	13	..	..	..	5,670.25	5,670.25	8,597.60	31
	1912	9	2	11	106	29	135	23	5	28	14	2	16	7,000.00	21,153.89	49,653.39	124

1917-1918

School	Date of Organi- zation	No. Teachers, M. W. Tot			No. Pupils, B. G. Tot			No. Graduates, B. G. Tot			Non- residents			Received from State	Salary Principal and Assis.	Net Cost for Schools	Av. Daily Attendance
		26	13	39	248	138	386	66	25	91	39	15	54				
Totals.....		26	13	39	248	138	386	66	25	91	39	15	54	\$43,293.34	\$54,008.19	\$101,523.63	309
Grand Rapids																	
Marquette		3	2	5	15	18	33	4	..	4	3	..	3	\$6,000.00	\$6,350.43	\$10,206.38	28
Menomone		2	2	4	17	24	41	3	6	9	1	0	1	5,950.00	8,904.25	8,904.25	35
Onalaska		4	1	5	35	17	52	11	3	14	5	2	7	6,000.00	7,384.80	11,619.89	25
Rochester		3	3	6	21	28	49	5	4	9	6	5	11	6,000.00	8,402.42	18,306.08	35
Wausau		5	2	7	53	18	71	19	3	22	16	7	23	6,000.00	6,600.00	9,346.87	60
Wauwatosa		2	1	3	14	18	32	7	5	12	0	0	0	5,843.34	5,843.34	8,424.92	24
		7	2	9	93	15	108	17	4	21	8	1	9	6,000.00	13,977.20	34,715.24	102

Furthermore, it is apparent that the best vocational training for the farm would not be provided when a pupil, after putting in two years at a county agricultural school in a decidedly agricultural atmosphere, finished out his school training in a high school with distinctly urban spirit and surroundings. A moment's thought will show that the location of most of the agricultural schools would tend strongly in this direction.

Largely for these reasons including also the desire for larger attendance, several of the schools proposed, a few years ago, the idea of a four year course which should give the equivalent of a high school course and which should admit to higher institutions. Such courses were approved and introduced into three of the schools. However, this change has not resulted in any marked tendency toward increase of students, though I think, on the whole, the effect has been good.

However, the four year course did not result in conditions wholly satisfactory to the county authorities and a year ago in two of the three schools a change was made back to the two-year course. This plan has now been nominally in operation for a year under new principals in both cases. These principals after a year's careful study of conditions and needs in their respective communities have both announced the judgment that patrons will not be satisfied with the two year course. So far, therefore, at the present time, one school at La Crosse is offering the four year high school course; four schools have from the beginning offered the two year course; and two schools at Menomonie and Milwaukee after changing to the four year course and then back to the two are of the opinion, at least so far as the principals are concerned, that a four year course should be offered. One school at Wausau giving the two year course has now been permanently discontinued.

Two of the schools, at Marinette and Grand Rapids, have been developed in connection with the county training schools for teachers of the respective counties. There have been some advantages in favor of this plan. First, it lessens considerably the necessary expense in establishing a school and makes it possible to begin in a smaller way at first, enlarging as needs develop. Again, there is much in common in the aims and ideals of the two kinds of schools. Both call for the meeting of rural problems. Further, many advantageous correlations of work are made possible and much duplication of equipment is avoided. Likewise, the pedagogical purposes and ideals of the county training school are likely to have a decidedly helpful effect upon the efficiency of the teaching in the agricultural school. Finally, extension work throughout the county is carried on advantageously by a cooperative plan between the two schools. On the other hand, the apparent per capita annual cost does not seem to be greatly reduced by this plan nor have larger numbers been led to enroll.

From what has been said it appears evident that the special problems of the agricultural schools are by no means uniform. Neither is it

fair to judge them entirely by their attendance or by their per capita cost. The fact, however, that *they have not fully met expectations in attracting an increasing number of young people by their exceptional opportunities for agricultural training, notwithstanding the large amount of both state and local aid they have received, offers at least a problem for careful thought and constructive suggestion.*

The attitude of this department hitherto has been that of allowing these schools the greatest freedom and latitude, consistent with the distinct provisions of the law, in working out their own problems and in developing such a program as seemed wise to local authorities. This has seemed especially reasonable both because the schools were comparatively new in the state and because the men in charge have almost without exception been men of conspicuous ability, experience and training in this particular field.

FUTURE DEVELOPMENT OF THESE SCHOOLS

During the last year, however, one of the state supervisors has given special attention to the study of these schools. As a result a number of rather definite conclusions have been reached regarding the guiding principles which ought at least to be kept in mind in the future development of these schools.

Larger Vocational Opportunity

First of all, recognizing fully the large amount of valuable work which these schools have accomplished, it yet seems reasonable to expect that they ought to furnish a vocational opportunity in agriculture to a much larger number, including not only young people from the farms, but also many from neighboring cities such as Milwaukee and La Crosse.

Close Relation With High School

Second, it is believed that the plan of work in these schools must be so related to the regular public school system, that *the door will always be kept open by which pupils who desire to do so may go from the agricultural school at any time into the regular system without serious loss of time or credit. The American public will never be satisfied with any special school of secondary grade which does not offer free opportunity for further schooling to all who desire it or which predestines all of its pupils to any particular occupation. Furthermore, no tendency in education has been more marked in recent years than the demand for at least the opportunity of a high school education for all boys and girls.*

In view of these considerations it is believed that the primary problem of these schools does not involve a two year course or a course of any particular length, though it is probable that all the schools should continue as in the past to offer a two year course leading to some kind of diploma for those who cannot or do not care to go further. It seems desirable also for reasons already discussed that at least some of the schools should offer the equivalent of a high school course for all who are able to complete such a course. By arrange-

ment with surrounding high schools it should be possible for graduates of the two year course to receive credit so as to be able to secure the high school diploma in two years of further work. However, unless it has been decided that such pupils are better fitted for some other occupation than farming, they should be encouraged to continue with the four year course at the agricultural school, rather than to go on in some high school which provides little of an agricultural atmosphere and from which they are much less likely to go back to the farm.

WINTER TERM COURSE

The winter term law was passed first in 1913 and was later amended in 1915, so as to provide state aid for a larger number of schools. The idea of this law was to stimulate the establishment in connection with the high schools of short winter term courses for pupils who could not attend school for the full year, or who were not prepared to enter regular high school classes; in other words, to provide a kind of continuation school for pupils, especially those in the country, who had for one reason or another dropped out of the regular school system. A special teacher is required to give his full time to the problems of this course and the state agrees to pay two-thirds of this teacher's salary up to a maximum of \$500 for any one school. Seven such courses were established the first year and eleven the second. For the last two years the data relating to these courses is shown in the following table:

TABLE 7.—*Winter Term Course*
1916-1918

Place	Length course (weeks)	Teaching cost	Enrollment			Average attend- ance	Nonres- ident	Nonres- ident tuition	State aid	Average age student
			Boys	Girls	Total					
1916-1917										
Total.....	.....	\$2,495	39	40	79	64	45	590	\$1,555	.....
Ellsworth.....	18	630	7	14	21	17	19	314	420	17
Neillsville.....	18	360	8	9	17	10	3	58	240	17
New Lisbon.....	24	650	6	9	15	14	4	72	325	17
Osceola.....	18	450	10	3	13	11	10	.....	300	17
Prairie du Sac*....	18	405	8	5	13	12	9	148	270	18
1917-1918										
Total.....	.....	\$1,918.25	42	25	67	52.1	46	756	\$1,345.50	84.4
Ellsworth.....	18	360.00	8	6	14	11	14	246	240.00	15
Neillsville.....	18	360.00	11	5	16	10.6	9	115	240.00	15.8
New Lisbon.....	18	450.00	4	5	9	8	8	144	300.00	16
Osceola.....	18	405.00	10	.....	10	8	10	180	270.00	16.5
Patch Grove.....	18	343.25	9	9	18	14.5	5	71	295.50	21.1

* Prairie du Sac discontinued and Patch Grove substituted in 1918.

The work of these courses has undoubtedly been very valuable. However, the number of schools that have tried the plan has been somewhat less than was expected. Yet it should not cause surprise that schools after starting this course have not kept it up permanently. In the first place, many of the pupils who have entered the course have been able to make adjustments so that they were able to enter regular high school classes and they have continued in the regular course. Again, the supply of pupils for such a course is likely to grow rapidly less in any community after the course has been in operation for two or three years and those interested have completed the course or entered regular high school work. Nevertheless, such a course ought to furnish a valuable opportunity to many more communities than have yet availed themselves of it. The state appropriation provides funds for fifteen schools, whereas during the last two years but five courses have been in operation. There is opportunity therefore for ten more schools and it is to be hoped that the full benefits of the law may be made use of in the future.

Such a course needs some preliminary effort in any community to bring its benefits to the notice of the people. High school principals, especially those in rural regions, are urged to consider the possibility of starting this course. It should be noted that the state provides for a large per cent of the necessary expense.

CHAPTER IV

DOMESTIC SCIENCE AND HOME MAKING

In former times the majority of people who argued about the value of domestic science work in the schools put forth one question which was supposed to carry a weight of meaning—"Is it cultural?" Today many of the same people are asking the questions—"Is it practical?" "Does it function?" And home economics people are realizing that it was easier to answer that first question in the early days than to answer the insistent, pertinent questioning of people who now expect to see every institution of public service in the country actively engaged in doing something that counts directly or indirectly towards the great task of war and the period of readjustment that must follow. Domestic science teachers are just beginning to realize their new and greater responsibilities—greater because in former times they were permitted to teach as though their subject were in a water-tight compartment, whereas now they are challenged to do that same teaching in active relation to its native environment, the home.

HOME MAKING OUR AIM, NOT MERE COOKING AND SEWING

It seems to be the general impression that the aim of domestic science work in the public schools is to teach girls to cook and to sew and nothing else. Our aims may have been thus interpreted, but this interpretation falls very short of meeting the ideals set forth by those most interested in the progress of domestic science in the public schools. To teach only cooking and sewing in our domestic science classes gives our students a misconception of the profession of home making, which as a matter-of-fact requires as much versatility and breadth of view as any profession in which men or women are engaged. In order that the students may appreciate home making as a profession, it is necessary to enrich our courses of study to the end that all phases of home making are included. Instead of two distinct courses, one in cooking and one in sewing, elected by different groups of students as is now the case, the cooking and sewing should be included in a well-rounded course which would cover such subjects as personal and household accounts and the budget, laundry work, sanitation in the home and the community, hygiene, both personal and civic,

hygiene and selection of clothing, and fundamental principles in the care and feeding of children.

Why should we single out cooking and sewing and emphasize them to the neglect of subjects as important as these mentioned? This may be answered by the simple fact that it is easier to teach lessons including mere cooking or sewing processes than this type of discussion lesson involving as it does much reading and study on the part of the teacher. But if the domestic science work in the public schools is to take its place in the community as an active influence for bettering home conditions, our methods and courses of study must be enriched to meet our increased opportunities.

MAKING DOMESTIC SCIENCE COUNT IN THE HOME

The most successful means of making domestic science training carry over into the home is the teaching of the subjects included in that term—by means of the home project method. This method has been used widely and with great success in agriculture. Domestic science teaching, embracing as it does all phases of home activity, is equally well adapted to the use of this method. Some of these projects will necessarily need to be performed in the home and some form of school credit may be given if desired, whereas others can be performed in the school, care being taken by the teacher to provide home conditions as far as possible. The practice apartment or cottage is one means that has been used to provide these conditions. In some schools in the state of Indiana they are building small kitchens for class work which are reproductions of the approved type of home kitchen found in the community, stressing of course the most convenient and serviceable equipment. By this method the home kitchen is made the unit of construction, the units being repeated as often as the number of pupils demand. The equipment should be simple, planned to put the girl on working terms with the kitchen at home. The rooms are built with only three walls, the fourth side being open on a hall. By this arrangement one instructor can supervise the work in a number of kitchens. The kitchens are planned to accommodate four or five girls. This type of equipment has been used successfully in the New Bedford Industrial School, New Bedford, Massachusetts, and the Boardman Apprentice Shops, New Haven, Connecticut.

Community Projects

Worth-while projects with unquestionable practical value can be and have been carried on in the usual cooking and sewing laboratories. Specifically, in the spring and fall of this year the cooking classes in many schools have canned and preserved for the people in the community, who furnished the food and jars.

In raising money for Red Cross and relief, the cooking classes have held food sales. Twenty-two cities report that they serve warm cafeteria luncheons for their students at noon. Of this number 19 indicate that the pupils of the home economics classes do the work of preparation and service of the luncheon.

Relating Class Work to Actual Home Situations

The great improvement in method in the above mentioned projects lies in the opportunity which they offer for handling food in family size portions and even larger quantities. The constant use of the individual quantity in cooking brings with it associations unlike those produced by preparing the same dish in family quantities. A mother visiting the cooking class in a city school was asked by the teacher if her daughter ever practiced cooking at home. The mother answered with a smile, "Yes, Mary made some apple sauce one day out of one apple. Now I don't see any sense in that." Nor did the teacher see any sense in that as a matter-of-fact.

The incident is worthy of note in that it is a reflection on the method which fails to present each lesson from the standpoint of the home situation even though the amount of food cooked must be small. This can be accomplished by such direct application as would be brought about by the following questions:

How many are there in your family, Mary? When you make apple sauce for supper some evening, how many apples will be required? What kind of apples? How much sugar? What pan shall you use?

This method of application or similar methods tend to make the right kind of home associations. In some schools the teachers have solved the problem of the cost of materials for large quantity cooking by taking orders for certain cooked products from housekeepers in the community. The noon lunch served to a group of teachers is another way of meeting this difficulty. Domestic science teachers would be more favorable toward having their classes provide noon lunches for the teachers if this could be counted as class time and not mean extra hours for the teacher. This could be arranged as one project for the cooking class by giving a series of eight or ten luncheons in succession. The time and energy of the teacher could be safeguarded by having the class meet for one hour before noon and by counting the noon hour as one class hour for the duration of this project. This could be worked out on the cafeteria plan or with table service or both as suited to the convenience of the teacher and the possibilities of the equipment.

Home Credit Cards

Home project work will never be a complete success until the mothers of the students are aroused to some active interest in what the teacher is trying to accomplish. For the best planned home project cannot be performed if the mother refuses to allow her daughter to work in the kitchen, because she feels as most mothers do that she herself can do the work in half the time. The cooperation of the mothers must be enlisted in this cause and they should be given to understand their responsibility toward this very necessary phase of their daughters' education. They permit their daughters to practice upon the piano in order to profit by a piano lesson, so they must permit them to practice in the kitchen and sewing room if they are to be proficient in these arts. The home credit card has helped to interest

mothers in cooking and housekeeping. This can be carried on by means of a report card for each student. The card has a space for listing projects studied at school which may be performed at home. Opposite each suggested item or project is a space for indicating the number of times the piece of work has been done and beyond this a space for remarks written by the parent or guardian as to the quality of the work done. A suggestive form for a report card of this kind is given below:

Name of Pupil.....		
Cooking and Housekeeping		
Food Prepared Housekeeping done	Number of Times	Remarks
Baked Bread .....	.....	.....
Cleaned Refrig.....	.....	.....
Prepared lunch, break- fast, dinner .....	.....	.....
Signed _____		Parent or Guardian

THE HOME PROJECT IN SEWING

The home project is less difficult to provide for the sewing classes. The garment which the pupil makes for herself constitutes a home project to a certain extent in that it fulfills a felt need in her home experience. It falls short of being a complete and adequate project in that the work is done from beginning to end under the careful supervision of the teacher. The confidence and initiative which the student will need to repeat this process at home is not cultivated largely because the necessity of safeguarding the material which the student has provided is paramount in the teacher's mind. Red Cross work has done much toward solving this problem in the sewing classes by providing more than one garment of a kind. This makes it possible for the teacher to give the students the opportunity to make a second garment without supervision. Repetition could, of course, be carried too far and thereby deprive the work of its educative value. After the second garment has been finished the wise teacher will select a garment involving somewhat more difficult processes, thus providing for the teaching of the fundamental processes in sewing in a progressive



FIGURE 4.—Group of High School Girls in Frocks made in Domestic Art Class—Kenosha.

order of difficulty. *The garment to be "made over" presents an excellent home project* and the wise teacher will encourage her girls to do more and more of this kind of work, for it is by such means that she makes her influence felt in the homes. *This biennial period has been marked by an active revolt against the patch or model—a small square of cloth* which was formerly used for the purpose of teaching all of the stitches needed for elementary work in sewing or for presenting one of the steps or processes involved in the making of a garment. *It is our policy to start even the beginners on some useful article* thus increasing the natural interest on the part of the student as well as adding weight and dignity to the work offered in the schools.

REPRESENTING THE FOOD ADMINISTRATION

Every school needs an active body representing the food administration at this time. It is logical to expect that the domestic science department assume this responsibility which entails the presenting of official food notes and regulations to all of the students in the schools in such a way that the information will be carried into the homes. For this purpose bulletin boards are necessary—one in the domestic science kitchen and a special food administration board in the main corridor of the school. Students are urged to contribute clippings and ideas.

Four minute talks may be given in assembly on any change in the food regulations or any specific phase of food conservation by members of the cooking classes. Lantern slides dealing with different phases of food study may be obtained from the section of Illustrations of the United States Food Administration.

Demonstrations may be given by teams trained by the cooking teacher, showing uses of left-overs and other means of food conservation and sweets that can be substituted for sugar. These demonstrations could be given in the kitchen to groups of high school students or parents after school hours.

It has been observed by home economics supervisors that there is a great need for the study of food combinations. After-the-war conservation menus may be prepared by the members of the cooking classes and placed in a conspicuous place on the blackboard. This would not only furnish excellent practice for the students in cookery but should react favorably upon the whole school body by the power of suggestion.

DOMESTIC SCIENCE IN THE GRADES

There is considerable increase in the number of high schools offering domestic science, and a decided increase in the number of schools offering this work in the grades. This is a source of satisfaction, particularly as it affects the introduction of the subject of cooking into these grades.

DOMESTIC SCIENCE
TABLE NO. 8.—*Number of Schools and Teachers*

	1915-16	1916-17	1917-18
High Schools offering Domestic Science.....	171	189	206
No. Schools offering it in the grades.....	123	142	183
No. Teachers employed.....	.....	.....	209

It is the consensus of opinion that the seventh and eighth years rather than any year of high school are psychologically the best years in which to introduce cooking into the girls' education. It has been found that girls in these grades take great interest in cooking and do remarkably good work. On the contrary, it seems to be generally true that high school girls take less interest in cooking and more in sewing due to the fact that during this time the instinct for self decoration is very active. But more important than either of these arguments is the undeniable fact that only one-tenth of all the children attending school in Wisconsin are to be found in the high schools. It is clear that if we have anything to offer our students in the way of lessons on the bettering of home conditions, an adequate diet to preserve health, and the wise selection and hygiene of clothing, it should by all means be given in the seventh and eighth grades in addition to the work offered in the high schools. Unfortunately we cannot console ourselves with the fact that home training will provide what we have failed to give, for it is clear that in these homes the pressure of mere living is so great that there is neither time nor ability to give the most meager training along these lines.

THE TEACHER

The broadening and enriching of the work offered in the public schools gives rise to the very pertinent question, "Are our teachers prepared to give these lessons? Has their training been broad enough and sufficiently related to life problems to enable them to handle this work in such a way as to make it carry over? At a meeting of city supervisors of domestic science held in New York in 1917 it was agreed that the schools which train domestic science teachers could remedy this situation by requiring students to get a certain number of weeks or months of actual housekeeping experience before the diploma or degree can be granted. Also it has been said that domestic science teachers more than any other teachers in the profession are inclined to specialize and limit their interests.

The present need felt by everyone for domestic science that *functions in our homes* has given the work a tremendous impetus and motivation. To cope with this more complicated situation *our teachers cannot fail to realize the necessity for a widening of their interests from a social point of view, to the end that they may deal not with theories but practical home problems.*

CHAPTER V

SOCIALIZATION OF GRADE WORK

MEANING OF SOCIALIZATION

The philosophy of Dewey, Thorndike, and other contemporary leaders in the field of education leads us to see that the learning process to be effective must be so managed that the child is constantly required to develop through his own activities in the solution of vital problems, the solving of which gives him present satisfaction. This idea is founded upon sound doctrines reinforced by numberless concrete instances of the effectiveness of this process of learning. It is learning through experience. The memorization of empty facts is incompatible with problematic teaching. It is true the child must know facts, but he must possess them as tools with which to think. In solving real concrete problems, the child uses many facts, and by this use they become associated, organized, and are consequently learned and remembered.

A child might recite the products of Brazil from memory with no mental images back of the words and with no motive for remembering them except to pass the coming test upon South America. On the other hand, the student may be given an interesting problem for study, as, *What articles in your home may have come wholly or in part from Brazil? From what other countries might these same articles have come? Why?* By this method the child is interested in Brazil's products because they affect him personally. Also he is enabled to visualize and grasp the economic worth of each product and to see many new relationships.

The second part of the problem through the discussion it awakens gives him an opportunity to build up the data from which to derive a basic geographic principle, namely; that like latitudes in general produce like products. This truth being arrived at by the child as a result of his own thinking process is distinctly *his* and will be retained. The habit of reflection on the words of the book is being practically inculcated through finding contacts between new materials and present environments.

This method of attack parallels life situations. In life, when a problem confronts us, do we do our best thinking? We face conditions, consider various courses, decide on one and act accordingly. The problem or project method of teaching trains the child naturally through constant participation in vital problems under conditions as

nearly as possible approaching those met in actual life. True training for citizenship in a republic can be accomplished through this type of teaching because it encourages independent thought and initiative. It also teaches the necessity for cooperation, courtesy, and fairness.

Complete "socialization" demands that not only shall the teaching methods in use be such that the pupil exercises his own initiative and learns through participation; but it requires that the subject matter to be taught shall be of such a nature that it will be of *both present and future use* to the child. The old time formal grade course of study must of necessity be greatly modified to meet these demands. Abstractions must give place to direct contacts with actual things and useless material must be eliminated to make possible the introduction of vitalizing elements.

DEVELOPMENT OF THE IDEA IN WISCONSIN

Wisconsin teachers have begun to realize the necessity for this "socialization" of the material taught in the school. This is evidenced by constructive modifications of the courses of study and practices in use in our most progressive classrooms. But the growth of the idea as affecting the teaching process has been entirely too slow. Formal memory work is still all too common. Fact questions unaccompanied by a thought provoking "why" or "how" are still very frequent. At present, courses of study consist mainly of outlines of the facts to be mastered. This may in a large measure explain the continued acceptance of mere fact answers by teachers. It is obvious that the problems for study in each school must be made to suit the needs and stimulate the attack of that particular group of pupils. In other words, every school must have its own growing and constantly changing set of problems determined by the present interests of its pupils to successfully motivate purposeful study.

These problems must of necessity be based upon a fundamental body of knowledge. This can, however, vary to a considerable degree in different schools as to the amount of time devoted to practical arts. A state course of study cannot suggest many of the particular problems of local interest because of its general application. The same thing is true of the textbook. The Wisconsin common school manual outlines socialized basic material to be taught in rural schools and has suggested numerous concrete problems to be solved and ways of relating the school to the life of the child. The final contact points, however, which arouse the highest degree of activity on the part of the pupils must grow out of local projects. To discover urgent pupil needs or projects which will lead into the material to be assimilated by the class requires a high degree of skill and definite training on the part of the teacher. Too few Wisconsin teachers are prepared to do this. The short period of training for the teaching profession and the brief tenure of employment may partially explain this. Teachers are sometimes found who apparently after leaving their training in-

stitution lapse into methods very like those in use when they were themselves in the elementary grades.

The improvement of teachers in service is therefore a most vital part of the principal's or superintendent's duty. *There is serious need in Wisconsin for increased emphasis upon intensive constructive supervision of classroom teaching* in order that modern accepted theories may function in practice. Administrative duties occupy much of the time that should be given to a study and analysis of classroom needs and to the presentation to the teachers of ways of vitalizing their teaching through socialization of the course of study, through increased pupil activity, and through more economical ways of presenting fundamental facts.

THE KINDERGARTEN

TABLE 9—Kindergartens in Cities, 1917-1918

City	No. of Kgs.	No. of Kg. Tchrs.	City	No. of Kgs.	No. of Kg. Tchrs.
Antigo.....	6	6	Milwaukee.....	71	157
Appleton.....	8	13	Mineral Point.....	1	1
Ashland.....	4	3	Monroe.....	4	4
Baraboo.....	1	2	Neenah.....	3	6
Beaver Dam.....	4	2	New London.....	2	2
Beloit.....	8	12	Oconomowoc.....	0	0
Berlin.....	0	0	Oconto.....	0	0
Brodhead.....	0	0	Onalaska.....	4	0
Burlington.....	1	2	Oshkosh.....	11	22
Chippewa Falls.....	4	2	Park Falls.....	0	0
Columbus.....	1	2	Peshigo.....	0	0
Cudahy.....	2	1	Phillips.....	2	1
De Pere.....	1	1	Platteville.....	0	0
Eau Claire.....	9	9	Portage.....	1	1
Edgerton.....	1	2	Prairie du Chien.....	12	22
Elkhorn.....	1	1	Racine.....	12	22
Evansville.....	1	2	Reedsburg.....	1	1
Fond du Lac.....	8	16	Rhinelander.....	4	3
Ft. Atkinson.....	3	2	Rice Lake.....	3	3
Grand Rapids.....	4	4	Ripon.....	0	0
Green Bay.....	2	4	River Falls.....	1	0
Hayward.....	0	0	Sheboygan.....	8	21
Horton.....	1	1	South Milwaukee.....	1	1
Hudson.....	1	1	Stanley.....	0	0
Janesville.....	5	6	Stevens Point.....	5	5
Jefferson.....	0	1	Stoughton.....	4	4
Kaukauna.....	2	2	Sturgeon Bay.....	1	1
Kenosha.....	8	9	Superior.....	11	23
La Crosse.....	9	9	Tomahawk.....	1	2
Ladysmith.....	0	0	Two Rivers.....	2	3
Lake Geneva.....	2	2	Viroqua.....	1	1
Lake Mills.....	1	1	Washburn.....	0	0
Madison.....	9	9	Watertown.....	0	0
Manitowoc.....	6	5	Waukesha.....	5	5
Marquette.....	6	4	Waupaca.....	1	1
Marshfield.....	1	2	Waupun.....	2	2
Mellen.....	1	1	Wausau.....	6	12
Menasha.....	3	6	Wauwatosa.....	2	3
Menomonie.....	1	1	West Allis.....	6	4
Merrill.....	3	6	Whitewater.....	0	0

Total number of kindergartens—307.

Total number of kindergarten teachers—469.

Total enrollment for kindergartens—21,462.

TABLE 10.—*Kindergartens in Counties, 1917-1918.*

County	No. of Kgs.	No. of Kg. Tchrs.	County	No. of Kgs.	No. of Kg. Tchrs.
Adams.....	0	0	Manitowoc.....	1	1
Ashland.....	0	0	Marathon.....	1	1
Barron.....	0	0	Marquette.....	6	6
Bayfield.....	1	1	Monroe.....	0	0
Brown.....	1	1	Milwaukee.....	0	0
Buffalo.....	1	1	Monroe.....	1	1
Burnett.....	0	0	Oconto.....	3	3
Calumet.....	1	1	Oneida.....	0	0
Chippewa.....	0	0	Outagamie.....	0	0
Clark.....	0	0	Ozaukee.....	3	3
Columbia.....	2	2	Peplin.....	0	0
Crawford.....	0	0	Pierce.....	0	0
Dane (1st dist.).....	0	0	Polk.....	1	1
Dane (2nd dist.).....	0	0	Portage.....	0	0
Dodge.....	1	1	Price.....	0	0
Door.....	0	0	Racine.....	0	0
Douglas.....	0	0	Richland.....	3	3
Dunn.....	0	0	Rock.....	2	2
Eau Claire.....	0	0	Rusk.....	0	0
Florence.....	1	1	St. Croix.....	2	3
Fond du Lac.....	1	1	Sauk.....	0	0
Forest.....	3	3	Sawyer.....	0	0
Grant.....	1	1	Shawano.....	1	1
Green.....	1	1	Sheboygan.....	2	3
Green Lake.....	1	1	Taylor.....	3	3
Iowa.....	1	1	Trempealeau.....	2	2
Iron.....	1	1	Vernon.....	1	1
Jackson.....	1	1	Vilas.....	0	0
Jefferson.....	2	2	Walworth.....	3	3
Juneau.....	3	3	Washburn.....	0	0
Kenosha.....	0	0	Washington.....	3	3
Kewaunee.....	2	2	Waukesha.....	0	0
La Crosse.....	0	0	Waupaca.....	1	1
Lafayette.....	2	2	Waushara.....	1	1
Langlade.....	2	2	Winnebago.....	0	0
Lincoln.....	0	0	Wood.....	3	3

Total number of kindergartens—72.

Total number of kindergarten teachers—74.

Total enrollment for kindergartens, 6,785.

In, general, the best example of socialization now existing in our schools is found in the kindergarten. The body of knowledge it teaches is based upon the child's interests and abilities. Procedure is largely determined by the child's responses and his consequent growth. The kindergarten develops the whole child by guiding his activities into constructive channels. Its course contains the elements and beginnings of all of the pupils' future school life and every child should have the advantage of kindergarten training.

Wisconsin has approximately 134,000 children of kindergarten age. 60,000 of these are in our rural communities and are therefore unable to have this training. 26,000 of those living in villages or cities are in kindergartens, but 48,000 other children similarly situated are denied this training because their schools do not provide for a full or part time kindergarten. Twenty-five children of kindergarten age in a community justify a kindergarten for at least half day sessions. Laws requiring school boards to establish a kindergarten upon petition

of the parents of twenty-five children have recently been passed in California, Washington, and North Dakota.

SPECIAL COURSES

The introduction into the city grades of courses under trained supervisors in fine and practical arts is quite general. These include manual training, domestic science, agriculture, music, art, nature study, and physical training. At least one of these subjects is reported to be under the management of special teachers in all of Wisconsin's cities except Peshtigo, Berlin and Ladysmith. In the grades outside of cities, a real effort is made to make as many as possible of these distinctively socializing factors available for the grade children. The need for the education of the whole child is keenly felt by school officers and a lack of necessary funds is practically the only cause which limits the introduction of these activities into all of our schools.

In order to provide trained teachers for special courses in small towns, in a few instances, two or more schools have jointly engaged a special teacher, who divides her time according to the needs of the schools in question. This plan seems practicable and an extension of this practice would make possible wider introduction of special activities and improved accomplishment.

Domestic and Manual Training

During the past biennial period, there has been a slight increase in the number of city schools offering domestic science in the grades. Two schools, Berlin and Tomahawk, did not continue the work during 1917-18. On the other hand, Cudahy, Phillips, Prairie du Chien, and Superior, which in the biennial report of 1914-16 were listed as not teaching domestic science in the grades, have added these courses under the direction of specially trained teachers. In spite of the drain upon the man power of the state to meet the war emergency, it is most gratifying to find that though Berlin, Green Bay, Hayward, Ladysmith, and Viroqua have been obliged for the present to discontinue their courses in manual training for the grades, Cudahy, De Pere, Horicon, Onalaska, and Prairie du Chien added manual training to their grade work.

These courses, though always greatly enjoyed by the students, have become much more practical and truly socialized by the real needs brought about by the war. Junior Red Cross activities have removed to a very large degree the necessity for mere "exercises" to afford sufficient practice in sewing. Boys and girls alike have aided greatly in making many articles necessary for relief work.

Nature Study and Agriculture

Active work in war gardens has taken the place in many schools of formal nature study and agriculture. School fairs and exhibits have added a zest to this work which cannot but have a lasting influence

on the type of nature work to be attempted in the future. Superior, Janesville, Kenosha, La Crosse, Madison, Milwaukee and Oshkosh are among the cities which have given special emphasis to this work.

Music

Practically every school teaches some music and with few exceptions the music supervisor gives training in chorus work and community singing. The systematic work in music begun in Wisconsin grades in only a few instances is continued through the high school. It is hoped that in the future regular classes will be provided in the ninth to twelfth years, which will provide for a continuation of this subject and will insure to each pupil the opportunity of becoming fairly proficient in either vocal or instrumental music. In Richland Center the school board and the city council jointly employ a band director. This instructor has charge of a large band composed of pupils from the fourth to the eighth grades besides a high school band and a business men's band. This is in addition to the regular music supervisor's work. The constructive results of this investment are evident to even the casual visitor in the town.

Art Work

The all too common plan prevalent in our smaller schools having a supervisor who takes charge of both the music and art work is not generally to be recommended. The reasons are obvious. Each of these subjects requires that the supervisor possess pronounced special talent upon which to build her training. Only in rare cases is one individual endowed with unusual ability in both of these subjects. The result is that in most cases one subject or the other is neglected. It is also true that both music and art require much daily preparation and call for participation in outside activities. The person who can do justice to both of these subjects at the same time is most uncommon.

There is no more potential subject in our grade curriculum than art. As a socializing factor, it has unlimited possibilities, but as yet these are not generally realized. Drawing is taught in most of the cities and in a fair percentage of the grades outside of cities, but in a large number of cases it is too formal, too technical and unrelated to life needs. It is not based in a majority of schools on actual present class or individual interests. There are exceptions to this, and a few instances of real project work in art classes have been reported, (La Crosse, Kenosha, Madison) such as the making of war posters, scrap books for soldiers, and other articles of commercial value. The type of work needed is of such a nature that it will function in every life activity. To teach taste in dress, in house furnishing, in general home and lawn beautification; to develop the ability to know value, and create beautiful things; to instill appreciation of nature; and to enable the pupil to live in an enriched world are entirely legitimate aims to be realized by the right kind of art teaching in our grades.

To secure these results we must have more and better trained supervisors, with teachers who have had sufficient training to be able to

follow their leadership; and a conception by superintendent, teachers, and supervisors of the full possibilities of this subject to function in the lives of the pupils.

Physical Education

In 28 counties of Wisconsin all of the grades below high schools are reported in 1917-18 to be without playground apparatus. Of Wisconsin's eighty cities, only 28 have physical directors for the grades. The importance of this work in the socialization of grade activities has not been realized by local educational directors. The recent findings by army examination boards, showing the large numbers of young men suffering from defects, many of which could have been prevented, shows the need for much greater emphasis of physical education; for increase in the amount of playground equipment; for adequate health inspection; and for greatly improved facilities for corrective gymnastics.

Membership in such organizations as Camp Fire Girls or Boy Scouts serves as excellent motivation for increased interest on the part of pupils in physical education.

A law has recently been passed in New York State, providing for instruction in physical training for all children above eight years of age in all public and private schools of the state. Material improvement in the physical efficiency of children of New York is assured by state control of the courses of instruction, qualifications of teachers, and apportionment of aid together with the mandatory nature of the law.

OTHER SCHOOL SUBJECTS

English

The gradual elimination of formal grammar from the elementary grades, and the substitution of oral composition exercises which give training in the use of correct English evidence the fact that this subject is being slowly socialized in our schools. However, abstract formal grammar is as yet taught in a large number of schools and corrective work, oral English work based upon topics of present interest, and other motivated language exercises are consequently omitted from the course. This condition needs the careful attention of all who are in supervisory positions. If necessary, obsolete material may be omitted from textbooks and live material substituted. Modern language books are available which give the material for English work which meets the needs of pupils.

The making of four minute speeches and writing of Thrift compositions have given vitality to grade language work that illustrates the possibilities of socialized work in this subject.

Civics and History

Never was there greater opportunity for teachers to make these subjects of worth to pupils. History is repeating itself in the present great conflict and some teachers are performing a real service by in-

creasing their emphasis upon the more recent periods of American history and showing how these events have shaped our present war policies and accomplishments.

History can be understood by pupils as never before through the activities now going on in every locality to further the winning of the war. Practically every lesson taught in history today, no matter what its topic may be, can be linked up to the present happenings which are affecting the lives of every person in the land.

Civics is also being made more practical in some schools. In Kenosha actual elections, sessions of the legislature, and cabinet meeting are approximated by pupils in their classrooms. Bills become laws in actuality and not in meaningless words. These methods are to be commended and make for socialization of the subject.

Reading

The subject of reading is one which is in serious need of socialization. Recent investigations have shown the urgent need of increased emphasis upon silent reading and ways of improving pupils' silent reading habits. This calls for diagnostic work to reveal individual needs and such organization of classroom projects as will enable each pupil to improve his own reading habits under intelligent direction.

A few teachers realize this need and are taking steps to suit their teaching to individual needs according to varying abilities.

The introduction into classrooms of the "Pupils' Reading Circle Work" has done much in schools, where it is in use, to vitalize the work in silent reading. Every grade pupil above the second year in Wisconsin should have a reading circle diploma.

Formal oral reading exercises in which one pupil reads aloud while sometimes as many as twenty-five children sit idly listening to his aimless rendering of material with which they are already familiar are still very frequent in our Wisconsin schools. More adequate methods of procedure are being introduced as rapidly as possible by state supervisors and others who have given this subject careful study.

Spelling

Studies of spelling conditions in Wisconsin have revealed the serious need of greater economy in the teaching of this subject. General investigations by recognized authorities have shown that certain lists of words are used constantly in the written work done by people in the various walks of life. These lists are available and should be the basis of class work in spelling. Some schools are modifying their spelling lists to meet life needs of pupils, but large numbers of teachers still follow the speller implicitly and still others choose words from readers and other sources which children may never need to write after they leave school. These same teachers often fail to teach, so that they function in practice, the most common words which pupils need to use repeatedly in life.

Arithmetic

Practical problems in arithmetic and economical ways of securing facility are two qualities which should characterize the teaching of this subject in all schools. Socialization of arithmetic demands this and also that the class shall learn arithmetic by the actual carrying out of vital projects approaching as nearly as possible those to be met with in later life. Only a few schools have realized the possibilities of this method. Real project work is very rare. Pupils are found engaged in artificial activities as measuring boards, measuring the school grounds, etc. These activities are of some value but lack the element of *use* to the child in accomplishing some bigger aim upon which he is intent. Formal work in arithmetic must give way to more vitalized teaching before satisfactory results can be expected.

THE SOCIALIZED RECITATION

The so-called "socialization of the recitation" has perhaps been put into practice by more teachers than has any other phase of true socialization in grade work. This is doubtless owing to the fact that it is a method of procedure which can be presented to large groups of teachers, can be written about in a general way, and has been adopted in some of the institutions which are training teachers. It is to be regretted that in a majority of cases this method of classroom work which calls into play a maximum amount of pupil activity and has untold possibilities *has not been dealing with socialized basic material presented by means of stimulating problems*. Instead, the material has often been formal and unrelated to life needs or to gripping pupil interests.

It is true, however, that the beginnings made in the use of the "socialized recitation" in most cases even though it has not yet fully "come into its own" gives promise of a most satisfactory growth. The motivation given to somewhat formal grade subjects by war emergencies can not but inject a permanent vitalizing force into our schools which will adapt itself to the new after war conditions and will extend into all school activities. These changes, however, can come about only as rapidly as teachers and supervisors incorporate fully socialized methods into their daily work. The state department is endeavoring through various agencies to further this work.

Other constructive forces such as institutes, teachers' meetings, summer courses, classroom recitations, etc. are being employed by superintendents and supervisors to bring about changes in practice which will eliminate wasteful methods in education. Progress is being made; but, until motivated, live, pupil-generated projects based on usable material make up the daily work of all of our schools tremendous dissipation of children's energies must continue.

CHAPTER VI

PROGRESS AND PROBLEMS IN OUR RURAL EDUCATION

In the broadest sense the rural schools include all the schools in which the country children get their education. In this sense the state graded schools also come in this classification, since practically all of them are located in small villages or in the open country. Many of the villages not only support schools for the grades but also supply high school facilities. Strictly speaking, these communities are also rural communities since many of the people live on farms; and even those who live in villages are interested primarily in the welfare of the country people and the development of the rural community. The union high schools may also be considered rural schools in that they furnish high school facilities to the children living in the country.

A full discussion of rural schools of Wisconsin, therefore, would embody the following classes:

1. The one room, one teacher school.
2. The state graded schools.
3. The village schools with high school facilities.
4. The union free high schools.

Every year a number of new state graded schools are established. In some districts the school attendance is too large for one teacher and the district establishes a two room school rather than divide the district. In other places two or more districts, usually having small school attendance, unite to form a large district and establish a graded school of two or more departments. Both of these methods are really forms of consolidation. During the past biennial period, 112 state graded schools have been organized where there were formerly one room country schools. The advantages of a state graded school over a one teacher school are the following:

1. It is possible to do more thorough work in the common branches.
2. It is possible to do more hand work.
3. It is possible to enrich the course of study by introducing features that are difficult to carry on in a one teacher school.

4. The attendance is larger with the result that there is greater interest in the school and its work.

5. It is possible to get teachers with specialized abilities and training.

6. It is possible in many cases to add work beyond the eighth grade, thus giving the children the benefit of some high school work while living at home.

A number of consolidated schools have been formed by the union of two or more districts during the biennial period. Under the present law two or more districts may unite into a larger district and thus receive extra privileges in special state aid. The present law, however, requires that there shall be a majority vote in each of the individual districts voting on the proposition. In several places the consolidation project was lost because of an adverse vote in one of the districts. Under the present law a comparatively small minority may be able to defeat the will of a large majority. To make the law more democratic and to serve the will of the majority, it should be so amended that the people rather than the individual districts would vote on the question in the whole proposed consolidated area. This plan would be in keeping with that employed in the establishment of the union high schools.

The state graded schools are discussed more in detail in Chapter VII of this biennial report.

Many of the young people in the country communities of Wisconsin have high school opportunities in their own districts. In many instances country children live in village districts having high schools. 139 state graded schools carry work in the ninth or tenth grades and to that extent furnish high school opportunities for the children in these districts. The 68 union high school districts afford high school opportunities to the children living within their boundaries.

The high school law further provides that any child who has finished the common school course in his own district may, if the district does not furnish high school opportunities, attend any high school and have his tuition paid by the town or village in which he resides. During the school year 1917-18 11,715 students were attending high schools in other districts.

THE ONE TEACHER SCHOOLS

In the more restricted sense the term "rural school" means the one teacher school. During the year 1917-18 there were 6,648 schools of this class in the state with a total enrollment of 158,478 children. This number is 35 per cent of the total number of children enrolled in the whole state.

ATTENDANCE

Comparing the attendance of the children in the one room country schools with that in other schools, we find the following results:

TABLE 11.—Attendance 1917-18

	Rural		State Graded		High Schools and Grades under County Supt.		Schools under City Supt.	
	Number	%	Number	%	Number	%	Number	%
Total.....	158,478	100	48,282	100	63,113	100	182,119	100
160 days or more.....	25,458	16	48,282	47	39,402	62	124,921	68+
120-159 days.....	76,030	48	22,451	35	16,025	25		
Less than 120 days...	56,990	36	16,903	18	7,686	12	56,425	31+

The last legislature amended the compulsory attendance law so that children between the ages of nine and fourteen years of age must attend school at least three months during the year if they live more than two miles and less than three miles from school. Under the previous law compulsory attendance was not required of children living beyond two miles from school unless transportation was furnished.

THE TEACHERS

Training

There are at present time three principal classes of institutions for the training of teachers in the country schools, namely: county training schools, high schools, and normal schools. During the past two years thirty county training schools have been maintained, twenty-seven high schools have had special courses for the training of teachers and received special state aid, and the normal schools have maintained special courses. The number of graduates from these institutions have been as follows:

TABLE 12.—Graduates from Rural Courses in Training Schools and Normals

	1916-17	1917-18
County Training Schools (30).....	781	832
High Schools (27).....	416	361
Normal Schools (Rural Courses 9)	314	273

Wisconsin law at the present time requires that a person, in order to teach, must have at least two years of schooling beyond the

elementary grades and that one of these years must be professional work. The reports from the county superintendents indicate that the teachers in the rural schools during the two years of the biennial period have the following training:

TABLE 13.—*Preparation of Rural Teachers*

	1916-17		1917-18	
	Number	Per cent	Number	Per cent
Graduation from High School.....	1,756	27	1,244	19
Graduation from High School with Teacher's Training Course.....	602	9	876	14
Graduation from County Training School.....	1,916	29	2,018	30
Attendance at H. S. or C. T. S. but not graduation.....	616	9	584	9
Graduation from Rural Course of Normal School.....	450	7	558	8
Attendance at Normal School.....	810	12	946	14
Graduation from Normal School or College...	216	3	246	4
Inadequate Report.....	253	4	176	2
Total.....	6,619	100	6,648	100

TABLE 14.—*Teaching Experience of Rural Teachers*

Number of Teachers Who Have Taught	1916-17		1917-18	
	Number	Per cent	Number	Per cent
One year or less.....	1,525	23	1,831	28
Two years.....	1,214	18	1,174	18
Three years.....	1,178	18	861	13
Four years.....	800	12	835	13
Five years.....	517	8	552	8
Six to ten years.....	1,029	16	1,029	15
Over ten years.....	356	5	368	5
Total number.....	6,619	100	6,648	100

Number Who Have Been Employed in Present Position	1916-17		1917-18	
	Number	Per cent	Number	Per cent
One year or less...	3,908	60	4,118	62
Two years.....	1,679	25	1,464	22
Three years.....	618	9	608	9
Four years.....	228	3.7	272	4
Five years.....	87	1	93	1.6
Six to ten years.....	79	1	81	1
Over ten years.....	20	0.3	23	0.4
Total.....	6,619	100	6,648	100

SALARIES

The salaries of teachers in one-room schools compared with teachers in other classes of schools are as follows:

TABLE 15.—*Comparison of Salaries of Rural Teachers and Teachers in Other Classes of Schools 1916-17*

	Rural		State Grade		Grades in Villages and Cities			
					Under Co. Supt.		Under City Supt.	
	Num- ber	Per cent	Num- ber	Per cent	Num- ber	Per cent	Num- ber	Per cent
\$40 to \$49 per month....	4,241	64	229	13	120	10	240	6
\$50 to \$59 " " " " " "	2,012	30	722	43	772	60	1,106	27
\$60 to \$69 " " " " " "	315	5	407	24	321	25	1,239	30
\$70 to \$79 " " " " " "	43	0.6	172	10	45	4	686	16
\$80 to \$89 " " " " " "	7	.....	93	5	15	1	630	15
Over \$90.....	1	.....	85	5	4	.....	261	6
Total.....	6,619	100	1,708	100	1,277	100	4,162	100

During the year 1916-17 approximately five million dollars were spent for teachers' salaries in the schools under the jurisdiction of the county superintendents. The total enrollment in these schools was approximately 275,000. In the rural (one-room) schools with an enrollment of about 160,000 (40% of the whole number) about 2½ million dollars were spent on teachers' salaries. It should be noted, however, that the number of teachers in these schools is 6619 or 61 per cent of the whole number (10,798), thus making the average annual salary \$386.50 in contrast with \$554 in the State Graded Schools.

THE SHORTAGE OF RURAL TEACHERS

The shortage of teachers in the latter half of the biennial period just past has been very marked. This has been due to many causes. The war has taken what few young men there were left teaching in the rural schools. Many young women have been forced to take the places of young men who are engaged in other lines of work. Many have left the profession voluntarily because of desirable openings in industries that offered better salaries and social advantages not common in the rural districts. Many have gone into the graded schools and city grades where not only better salaries were offered but in their opinion social advantages were greater. Some have remained at home and have been engaged in enforced agricultural pursuits.

It goes without saying that no matter how much moralizing is done by teachers and others of supposed influence with the new members

of the teaching profession about their moral obligation to teach in localities where they have been educated, the young teacher will go where she finds better social conditions, coupled with a good salary. Usually she will sacrifice on the salary question for the advantages that will come to her in thickly settled sections of the country, where board, room, janitor work and nearness to the schoolhouse are very highly prized.

While the salaries of teachers in rural districts have been greatly increased during war time, they are not yet high enough to induce the teachers to forego the social and religious advantages that may be gotten elsewhere. Even before the war we were confronted with the low salary paid to the average rural teacher as compared with the salary paid to a teacher in graded and city schools. Those who have discussed in a public way this question have usually contended that the rural communities did not pay the teacher what they could afford and what the teacher had a right to expect. This line of argument has usually been given by members of the teaching profession and others from the city who are more conversant with urban affairs than with the subject they were discussing.

It may be said that as a rule the people who control the schools in our villages and cities are those who are controlling the administrative and business affairs of these same localities. Usually these are the wealthier citizens and they are shaping not only the business affairs of the town but the educational as well. They vote to hire teachers and pay them salaries far in excess of what they would were their annual income reduced to that of the poorer inhabitants or to the annual income of the average farmer. When the farmer with the same amount of both physical and mental energy shall have an income equal to that of the people in the city who control the school system, then will he be expected to pay, and in my opinion will pay, the teaching force as well as it is paid in the urban communities.

The salary question is largely and almost entirely economic. To solve it in the rural communities we must see to it first that the farmer who supports the school system is paid for his labors, both mental and physical. If prices paid for his produce during the war could continue in time of peace the farmer would not then have to be exhorted to pay the rural teacher a just compensation for her services. Often the very man who is lamenting the fact that the rural teacher is poorly paid and exhorting the rural communities to pay better wages, is the cause of the whole trouble. He is not only dissatisfied with the teachers' wages but is complaining that the produce raised in communities where she teaches which is the only means of paying her is too high priced and is doing what he can in a public way to cheapen it. He often complains about the intelligence of those in rural communities when as a matter-of-fact, if an honest comparison were made, he would look a pitiable spectacle.

The line of argument presented tends to disgust the rural citizen.

He knows his so-called informant is ignorant of facts, is discussing conditions foreign to him and under which he refuses to live. The speaker is pitied but his audience—largely because of lack of a knowledge of genuine rural conditions is more firm than ever in its belief that its members are as philanthropic as he and are contributing as much as he, in proportion to worldly effort, to their share of teachers' salaries.

Facts are easily obtainable to show the annual net income of the average farmer. This man under normal conditions, with the intelligence of the one who is informing him what to do with his money, has put in about double the time each day in labor, together with several members of his family, and all this for much less than the one who is trying to direct his activities. When the rural communities receive just compensation for their mental and physical exertions can market their produce without being preyed upon by unscrupulous middle men, they will be able to shorten their hours of labor, create better rural social conditions and have the ability to pay all laborers in their midst, including the teachers, a compensation equal to that of any other class of people. Not until this is done will the teachers in the rural communities be able to get the salaries they can get elsewhere.

TABLE 16.—*A Classification of One-room Schools, According to Number of Children Enrolled in 1916-17*

5 children or fewer.....	87	36 to 40 children.....	487
6 to 10 children.....	471	41 to 45 ".....	296
11 to 15 ".....	898	46 to 50 ".....	183
16 to 20 ".....	1,125	51 to 55 ".....	99
21 to 25 ".....	1,152	56 to 60 ".....	64
26 to 30 ".....	899	60 children or over.....	65
31 to 35 ".....	667	No. not classified.....	108
Total number of schools..			6,601

From the above table it will be seen that about one-third of the schools have an enrollment between 16 and 25 pupils and approximately another third of the schools enroll between 26 and 40 pupils. About one-fourth of the schools have fewer than 15 pupils on the roll and eleven per cent have an enrollment of more than 40.

The law provides that when a school has an enrollment of 60 or over for a period of twenty consecutive days, the district must provide an additional teacher for such school the next year or forfeit its share of the apportionment of the seven-tenths mill tax.

The law provides that a district may vote to close its school for any one year and authorize the board to provide schooling for its children in some neighboring district or districts. This is sometimes done when the attendance becomes small. A special state aid of \$150.00 is granted such district if it complies with the requirements of the law regarding transportation. During the year 1916-17 there were 111 schools closed and in 1917-18 the number was 109.

TRANSPORTATION

During the year 1916-17 \$107,382 was spent for the transportation of which about half, or \$54,108 was expended by rural school districts. The expenditure was increased to \$137,415 in 1917-18, the amount expended in districts having one-room schools being \$58,876—. Comparing the amount spent for this purpose these two years with the amount spent in former years we find a steady increase. In the year 1915-16 the total amount spent was about \$85,000 of which \$43,000 was in rural districts, while in 1914-15 the amounts were \$71,000 and \$35,000 respectively.

The expenditure for transportation in districts having State Graded Schools shows a corresponding increase for the four years: 1914-15, \$24,000; 1915-16, \$33,000; 1916-17, \$40,742; 1917-18, \$48,207.

The legislature of 1917 amended the transportation law, including the feature relating to special state aid. Under its present provisions state aid to districts complying with the requirements of the law is granted as follows: For children transported more than two miles and not more than three, ten cents per day for each pupil; for children transported more than three miles and not more than four, fifteen cents; for children transported more than four miles, twenty cents. The rates are the same for consolidated districts.

STANDARDIZATION OF SCHOOLS

The last session of the legislature created what is known as first-class rural schools and second-class rural schools.

The law mentions several specific requirements which a school must meet in order to be classed as a first-class school and share in the special state aid of fifty dollars annually. All those not meeting those requirements are known as second-class schools. The seven requirements are as follows:

1. Length of school year.
2. Condition of school buildings.
3. Kind and condition of outbuildings.
4. Needful apparatus and equipment.
5. Supplementary readers.
6. An adequate system of ventilation.
6. Efficient work on the part of the teacher.

The law definitely prescribes that the school must be maintained for at least nine months. It also directs that the State Superintendent shall outline the requirements under each head, where the law itself is not specific. The State Superintendent has accordingly outlined a plan covering three years of time for its completion for districts desiring to secure such aid. A pamphlet containing such requirements has been sent to all district clerks and teachers.

During the past year, which is the first year under the operation of the new law, more than 900 have received the fifty dollars special aid.

The law has done much to stimulate school districts in providing better school privileges for their children and has evidently acted as a spur to many teachers in their classroom instruction.

SPECIAL STATE AID TO TEACHERS IN RURAL SCHOOLS

A special state aid of two dollars per month is given to a teacher in a rural school the second year of consecutive service in such school, provided the work is satisfactory and meets with the county superintendent's approval. If the teacher returns to the school the third year, the special state aid is four dollars per month. For the fourth and every subsequent year, eight dollars per month is granted.

This law was passed in 1915 and at that time included teachers in graded and high schools, outside of incorporated villages and cities. The legislature of 1917 amended the law to make it applicable to teachers in rural schools only.

During the school year of 1916-17 there were 3117 teachers who received special state aid under this law, the total amount being \$88,138.99. In the year 1917-18 2,266 teachers shared in the apportionment which reached a total sum of \$65,776.45.

RURAL SCHOOL SUPERVISION

It is not easy to supervise effectively the six thousand, six hundred forty-two rural schools of Wisconsin. While these schools are under the supervision of both state and county officials, nearly all classroom supervision is confined to county officials. State supervision is given by two state rural school supervisors who, from the nature of the case, can visit only a comparatively few schools each year.

Each county has a county superintendent and one or two supervising teachers. The supervising teacher works jointly under the direction of the state and county superintendent. All her time is devoted to field work. Very little supervision is given by the local school board, in fact, too little. Much of the county superintendent's time is needed in administrative ways, thus preventing him from devoting all his time to classroom supervision. The result is that the rural teacher has on the average from one to three short visits during the whole school year. While this amount is far better than none at all, it is to be regretted that conditions are such as to make it almost impossible to give these schools and their young teachers the benefit of weekly or at least monthly visits of an experienced supervisor. To provide a system of supervision by people possessing education, experience, and personality, and enough of them to give monthly visits to the schools would be so costly that the state and county would refuse to do it. It would seem for the present, so long as we have a large number of one-room schools, that to secure more effective supervision it must be done in some other way. One large item of expense in the system as suggested is caused by the necessity of travel.

The rural schools are situated from one and a half to six miles apart, frequent visits are impossible without a large force of supervisors, and these supervisors would of necessity need to be well educated, experienced teachers, possessing judgment and tact as well as a good personality or the visits cannot result in much good to the teacher or the school. During all this time while she is traveling, the supervisor is being paid for her time but is not in any school system.

Two methods suggest themselves under present conditions in giving the rural teacher more help. In the first place, young teachers and, in fact, any teacher can learn better by seeing work done than by being told how to do it. If the supervisor will teach a large share of the time for the teacher whom she is supervising, far more can be accomplished than where the supervisor sits and observes the regular teacher and at the close of the period or day tells her in what ways she has done well, or in what ways she has failed. This is an antiquated method of supervision. No person should be permitted to supervise a school unless she is able to teach any class under her supervision and manage the school in an efficient way. Too many of our supervisors are not expert teachers but content themselves in attempting to tell others how to teach rather than by teaching themselves.

Another way of instructing the teaching force of a county is for the county superintendent and supervising teacher to hold local and county meetings at which places actual teaching shall be done by them, with children or with the teachers themselves as a class, to demonstrate methods to be used in the county and to unify the teaching work. This line of work is exemplified by the state at the county superintendents' convention and supervising teachers' conference.

Each year there is held in the state a county superintendents' convention and at another time, usually in the early fall, a conference for the supervising teachers. At these conventions not only are administrative matters with reference to the work of these officials discussed but demonstrative exercises of actual teaching, using the members of the convention for a class, given by members of the state superintendent's office and others from outside Wisconsin. What is here done in the way of actual teaching, especially for the supervising teachers, should be duplicated by them for the teachers in their county. If we may judge from the remarks of supervising teachers as to the value of actual class teaching for them, there can be no question but that their best line of supervision could be accomplished by doing for their teachers what they have had done for them by the state.

Many teachers' gatherings are used in the discussion of administrative affairs, the distribution of blanks and circulars and the reading of papers dealing with abstract pedagogy or general methods of teaching. Much of this time could be used to better advantage in demonstrative class exercises.

With the present machinery for rural school supervision, it would seem it should be strengthened along the two lines here mentioned.

When the public can be made to understand the advantages coming to it with a larger school as the result of consolidation, we may then more effectively supervise these schools with the same force of supervisors as at present, but until then we may more effectively supervise the rural school by more actual teaching by the supervisor during a visit and by the class exercise at conventions or at teachers' meetings. It should be said, however, that *never before have the rural schools in Wisconsin been given as much help as they have during the last biennial period, largely due to the effective work done by the supervising teachers.*

TABLE 17.—Summary of Supervising Teachers' Report

	1916-17	1917-18
Number supervising teachers.....	93	92
Number counties having two supervising teachers.....	21	19
Number different schools visited.....	9,375	9,666
Number conferences with school officers.....	4,188	4,468
Number teachers' meetings in which supervising teachers assisted.....	896	811
Number community gatherings attended.....	1,628	1,875
Number teachers visited:		
(a) Once.....	5,192	5,148
(b) Twice.....	2,914	3,047
(c) Three times.....	865	859
(d) Four times.....	247	295
(e) Five or more.....	113	132
Total.....	9,331	9,530
Number teachers with whom supervising teachers spent:		
(a) Less than one day.....	2,528	3,237
(b) One day and less than two.....	4,358	4,279
(c) Two days and less than three.....	1,864	1,619
(d) Three days and less than four.....	409	332
(e) Four days and less than five.....	130	113
(f) Five days or more.....	42	45
Total.....	9,331	9,526
Total salaries.....	\$68,069.01	\$69,746.91
Total expenses.....	25,533.07	28,386.53
Grand total.....	\$93,657.08	\$98,133.44

THE COUNTY SUPERINTENDENT

The office of county superintendent has given the educators considerable concern for a number of years. Its administrative features have increased with each succeeding legislature and of necessity weakened the influence of the educational representative of the county in his professional duties. It should go without saying that each county should have one educational representative who has charge of all the educational matters in the county. At present, however, there seems a tendency to put different lines of educational work under different heads, each working more or less at cross purposes with the other. We should have at least county health directors, agricultural directors and supervisors of the so-called fundamental sub-

jects, but all of these and such others as time and experience shall reveal necessary should be under the general direction of the county superintendent. A system similar to the one here outlined has been worked out with remarkable success in Cook County, Illinois. This would not only give dignity to the office but would make it lucrative and attractive to men of ability. At present it is neither. One of the main reasons why it is not lucrative is that it is not attractive. Men of worth like an opportunity to do big things and this opportunity is largely lacking under our present laws. To be sure strong men will create opportunities under almost any conditions but the present salaries and the method of getting them is no inducement for men of ability. The result is that women, young men or those about to retire from active service constitute the majority of candidates for the county superintendency. There will be drafted and submitted to the coming legislature, bills whose purpose will be to dignify the office of county superintendent by making it an attractive field well paid.

COUNTY SUPERINTENDENTS' SALARIES

There are 71 counties in Wisconsin and 72 superintendents, Dane County being divided into two superintendent districts, the eastern and the western.

Twenty-six counties pay \$1,200 a year, or a monthly salary of \$100.00. Twenty-eight counties pay more than this amount and eighteen pay less. These figures are taken from the annual reports for the year ending June 30, 1918.

The salaries range from \$1,000 (Florence County, \$900.00), the minimum amount under the present law, to \$2,500 which is paid by only one county. Thirteen counties pay \$1,000. The total amount paid for county superintendents' salaries (1917-18) was \$92,775, the average for each county being \$1,288.

The salary of the county superintendent is fixed by the county board of supervisors. A bill providing higher salaries for the superintendents was introduced into the legislature at the last session. It was passed almost unanimously in the senate but voted down in the assembly.

Increases in the county superintendents' salaries was made by county boards during the last year as follows: Brown, \$300; Calumet, \$500; Dane (First District), \$100; Fond du Lac, \$300; Jackson, \$200; Marathon, \$200; Outagamie, \$200; Polk, \$300; Sheboygan, \$300; Washington, \$200; The following counties lowered the salaries: Kewaunee, from \$1,200 to \$1,000; Florence, from \$1,000 to \$900.

The following table shows the salaries of the county superintendents for the last school year:

\$2,500—Milwaukee County.
2,000—Marathon.
1,800—Ashland, Brown, Rock.
1,600—Calumet, Dane (First District), Dane (Second District), Washington.

- 1,500—Fond du Lac, Grant, Langlade, Manitowoc, Polk, Sauk, Sheboygan, Waupaca, Winnebago.
- 1,400—Dodge, Outagamie, Taylor, Waukesha, Wood.
- 1,375—Shawano.
- 1,350—Columbia, Oconto.
- 1,300—La Crosse, St. Croix.
- 1,200—Bayfield, Clark, Crawford, Door, Douglas, Dunn, Forest, Green, Green Lake, Iowa, Jackson, Jefferson, Juneau, Kenosha, La Fayette, Lincoln, Marinette, Marquette, Monroe, Oneida, Racine, Richland, Vernon, Vilas, Walworth, Washburn, (26 counties).
- 1,100—Barron, Price, Rusk, Trempealeau.
- 1,000—Adams, Buffalo, Burnett, Chippewa, Eau Claire, Iron, Kewaunee, Ozaukee, Pepin, Pierce, Portage, Sawyer, Waushara. (13 counties)
- 900—Florence.

Compared with the salaries received by the city superintendents, the above salaries are all low. Few high school principals, even in the small high schools, receive less than \$1,200. The work done by the county superintendent is as important as that of the city superintendent and should receive proper recognition in the form of compensation. Almost two-thirds of the children of the state are enrolled in schools under the jurisdiction of county superintendents.

Compared with the other county officers, the superintendent gets a comparatively low remuneration. There is no county officer whose work is of such vital importance to the welfare of the county. Upon his leadership depends to a great extent the progress of the educational interests.

The county superintendents and the city superintendents should be on an equal footing in our educational rating. Both of these classes of leaders should be strong in administrative ability and in educational and community leadership. They should be recognized by the people as public servants of high rank and recompensed accordingly.

CHAPTER VII

THE DEVELOPMENT OF THE STATE GRADED SCHOOLS

The State Graded Schools were established by legislative enactment in 1901. There are two classes of state graded schools. A state graded school of the first-class consists of three or more departments. A state graded school of the second-class consists of two departments.

For the purpose of aiding state graded school boards to supply these schools with the equipment needed to carry on the work effectively, to aid in maintaining hygienic conditions in the school, and to engage efficient teachers, special state aid is granted. A district that maintains satisfactorily a school of the first-class for at least nine months is granted state aid of \$300.00. A district that maintains satisfactorily a school of the second-class for at least nine months is granted state aid of \$200.00.

The legislature of 1913 enacted a law which provides special state aid of \$100.00 to a state graded school of either class which does satisfactory work in manual training and domestic science in grades seven and eight, and satisfactory work in agriculture in grade eight.

DEVELOPMENT OF STATE GRADED SCHOOLS IN TEN YEARS

The following table will show the development of the state graded schools and their relation to the development of high schools in the past decade.

TABLE 18—*Development of State Graded Schools*

	1907-1908	1917-1918
Number first-class schools	149	221*
Number second-class schools	235	402*
Number graded-school teachers	1,238	1,668
Number first-class schools that have become high schools during the decade		107
Number first-class schools offering 9th and 10th grade work	109	127
Number of pupils taking 9th or 10th grade work	642	1,490
Number of pupils graduated from state graded schools.	1,915	3,012
Number of state graded schools offering industrial work...	0	357

* This number differs from report in Table 47 (appendix). The additional 11 schools in Table 47 technically are state graded schools but do not meet all requirements for state aid.

The legislature of 1915 enacted a law which entitles nonresident students to have their tuition paid by their respective towns when they pursue in first-class state-graded schools the ninth grade or tenth grade studies that have been designated in the graded school course of duty, provided that the school is properly equipped and the work has been approved by the state school supervisor. Ninth grade work may be approved in a school having three teachers. Ninth grade work and tenth grade work may be approved in a school having four or more teachers.

STATE GRADED SCHOOLS AND HIGH SCHOOL WORK

Since 1901 practically all the new high schools that have appeared were developed from state graded schools. For the past decade the number is 107. No advanced grade work is approved in a school of the second-class for the reason that there is not the time available to do the work. In a school of two departments it is possible by careful planning and systematic attention to the program to have fifteen minutes for classes in the elementary branches. No teacher can do satisfactory work with less time at her disposal.

For the same reason, not more than nine grades of work are approved in a three teacher school nor more than ten grades in a four teacher school. For the work of the grammar and high school grades twenty to thirty minutes is necessary for satisfactory work. Besides this time requirement, the teacher must have special preparation to do it. This applies more especially to the high school subjects such as science, English, and history, than it does to the elementary branches, not only because of the technique and the literature involved, but because of the different human problem represented in the child. Furthermore, to guard against memoriter work, which is one of the chief weaknesses in these grades, there must be reference material. Many people believe that the high school courses exist so that children may gain facts. It naturally follows in their minds that all that is required is to arrange for a course, engage a teacher, and supply the pupil with a textbook. Such a course is of little value. Instead of this, the idea should prevail that the school is for the purpose of training the pupil to use his mind, to think for himself, and to learn to form judgments. This requires not one book but many, hence the need of a reference library and apparatus for simple experiments.

The establishment of ninth and tenth grade work in the graded schools makes it easy to keep the boys and girls at school two years longer. It serves to help them find themselves intellectually under conditions where the home is a large and beneficent influence. If the work is done under a teacher with strong scholarship, skill in dealing with young minds, and a capacity to fire ambition, it will receive credit at the larger school to which the pupils should go to finish a high school course.

When the question arises, whether to establish a four-year high school course in a school that will always be small and in which it will always be a question how well the community will be able to bear its responsibilities toward such a school by engaging efficient teachers and supplying the school with what it needs, or to conduct a strong state graded school and let the pupils take their last two years at a strong, well established high school, the interests of the pupils would seem to require that the latter course be followed.

THE STATE GRADED SCHOOLS AND CONSOLIDATION

Nearly all of the consolidation that has been effected in Wisconsin has been done in connection with the state graded schools. Every state graded school is the expression of a public attitude that is in favor of centralized school facilities and that is opposed to the decentralization which is expressed in the one-room rural school.

This favorable attitude toward consolidation is represented in two different ways among the 623 graded school districts in the state. The first, and the one most frequently found, is the district whose school population has become too great for a one-room school and one teacher to accommodate it. The people realize that thirty to forty children are as many as a teacher should be expected to manage successfully. The question thus arises, would it be better to divide the district, create two schools, and duplicate the bad conditions of a crowded program, or would the better course be to have two teachers, each with half the number of grades of pupils to manage, and receive the special state aid for a graded school. The question is usually answered by organizing a state graded school, which if not a technical consolidation, is a refusal to decentralize. Many of these schools have grown to three and four departments and finally into high schools.

A second and direct method of consolidation is found when people see the great advantage there is in the large graded school over either the large or the small one-room school, and two or more districts are consolidated. The Bancroft school district, Plate 5 is an example of a consolidated district formed by two districts consolidating with a graded school district that employed three teachers. The consolidated district employs five teachers and offers eleven grades of work.

Rudolph, Plate 6 is an example of a consolidated school district formed by joining two large one-room rural schools. The consolidated school employs four teachers and offers ten grades of work. This district took advantage of the provisions of Sec. 20.26 and received aid from the state to the amount of \$2,000 for building.

Butternut, Plate 7 is an example of a school district that enjoys the advantages of transportation without a formal consolidation. It will be noticed that transportation of children goes hand in hand with consolidation. Special state aid is provided in Sec. 40.16 for districts that transport pupils, and under certain conditions parents may transport their own children and receive the aid therefor. Thus, Bancroft transports eighteen families. In Rudolph twenty-one families are trans-

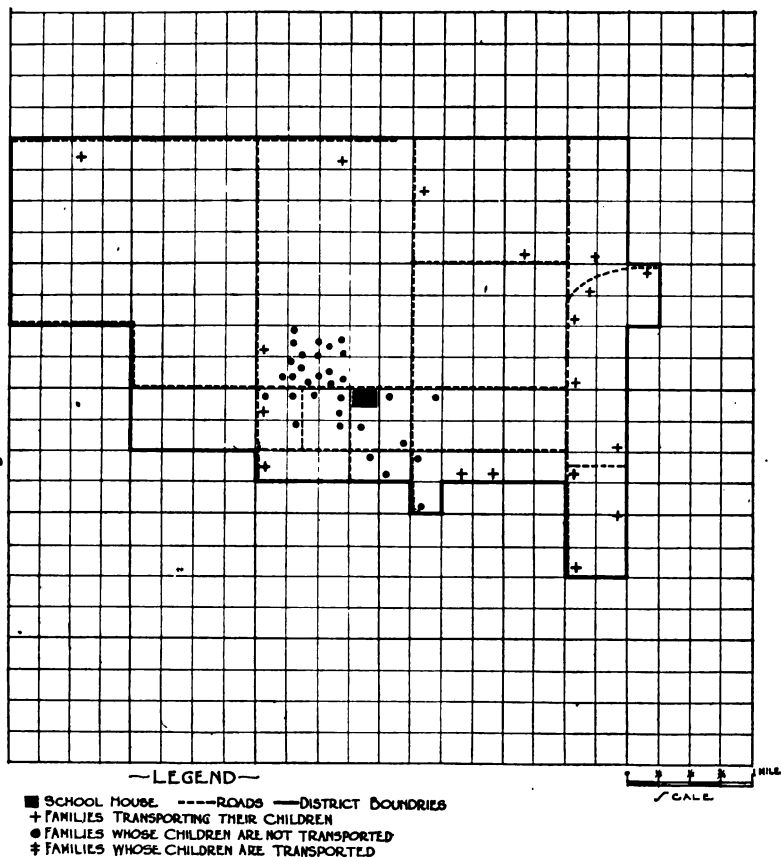


FIGURE 5.—Bancroft, Jt. Dist. No. 1, Pine Grove and Almond, Portage County

No. of districts consolidated.....	2
Assessed valuation of district.....	\$225,000.00
Cost of schoolhouse (4 rooms), building already erected.....	.....
Enrollment, 1916-17	145
Average daily attendance.....	85
No. of teachers employed	4
No. of grades taught	10
No. of wagons for transporting children.....	5
No. of children transported	28
Cost of transportation.....	\$1,177.50
State aid for transportation.....	\$385.00
Special state aid for graded school.....	\$400.00

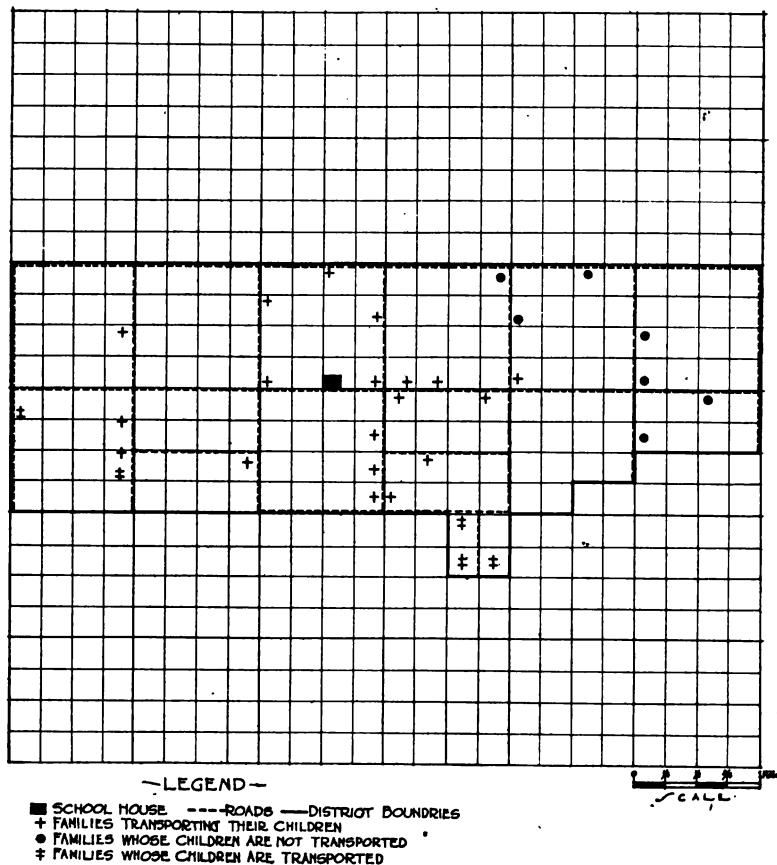


FIGURE 6.—Rudolph Dist. No. 1, Rudolph, Wood County

No. of districts consolidated.....	2
Assessed valuation of district.....	\$444,629.00
Cost of schoolhouse (4 rooms).....	\$10,080.00
State aid for building received.....	2,000.00
Enrollment, 1916-17	116
Average daily attendance.....	85
No. of teachers employed.....	4
No. of grades taught	10
No. of wagons for transporting children.....	1
No. of children transported	29
Cost of transportation.....	\$607.80
State aid for transportation.....	\$424.00
Special state aid for graded school.....	\$400.00

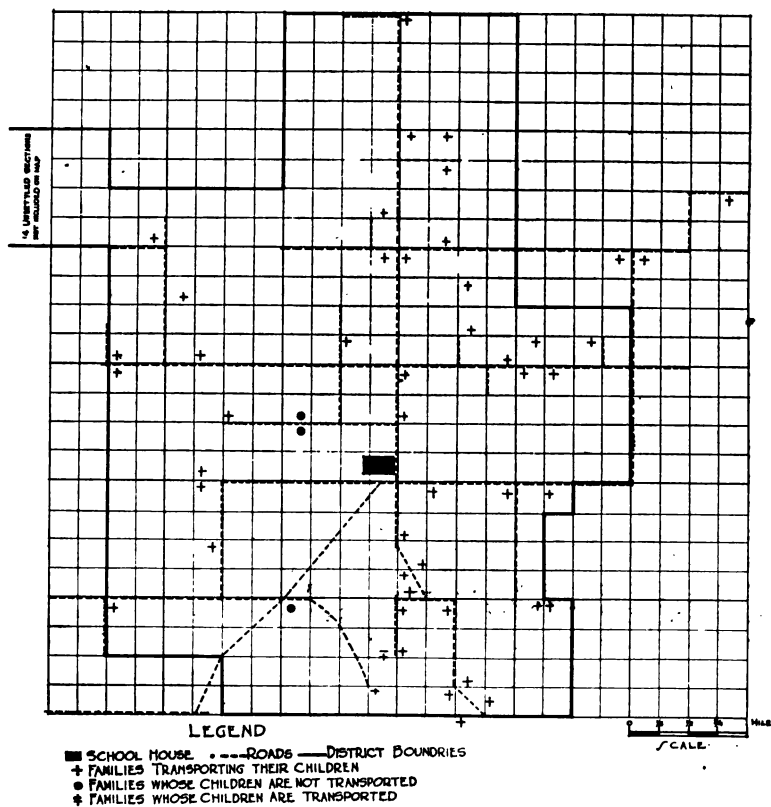


FIGURE 7.—Butternut, Jt. Dist. No. 1, Butternut and Agenda, Ashland County

Not a consolidated school district	
Assessed valuation of district.....	\$428,186.00
Cost of schoolhouse (high and graded school).....	38,000.00
Enrollment (grades), 1916-17.....	227
Average daily attendance.....	218
No. of teachers employed—	
In grades	7
In high school.....	3
No. of wagons for transporting children.....	6
Cost of transportation.....	\$1,868.00
No. of children transported.....	69
State aid for transportation.....	\$505.80
Special state aid for graded school.....	\$300.00

ported. Five families do their own transporting. In Butternut, in addition to the large number of families transported to the splendid modern school in the village of Butternut, three families from outside the district are transported.

All these schools are located in parts of the state where the snows are deep, the roads only in average condition, and the climate all that can be encountered for severity in Wisconsin. The same may be said for other consolidated schools such as North Crandon, Port Wing, Cornucopia, Irma, Apple River, and others. The children who are transported are healthy and hearty. If this is true in these cases it must be equally true for those parts of the state which are noted for having many small schools closely situated. The marked success of these consolidated schools is a tribute to the enterprise and good judgment of the people who saw that if schools are to be successful they must be conducted on good business principles.

FURTHER OPPORTUNITIES FOR CONSOLIDATION

The map, Plate 8, is a good example of many opportunities that exist to rectify school district boundaries, transport the children, and consolidate weak and inefficient schools. This represents a town in one of the most prosperous and well-settled parts of Wisconsin. The country is level; the roads are good; it is in a part of the state not subject to the most severe weather or deep snows. In and connected with this favored area of 36 square miles are no fewer than 15 school districts. Those having schoolhouses in the town range in enrollment from 5 to 38 children. The one of an enrollment of 38 is a graded school of two teachers. The assessed valuation of the property within the town in 1917-18 was \$2,278,381; that of the district enrolling the 5 children was \$216,835; that of the graded school district was \$362,150. The assessed valuation of those parts of joint districts lying in other towns was \$947,170. The total assessed valuation of the 15 school districts was \$3,581,304.

The first conclusion from the facts shown by the map is that the administration of education in this town is wasteful of money. Of the 12 schools located in the town, 9 are too small. All 12 enroll 227 children who could easily be managed by 5 teachers. Secondly, it follows that because these schools are small and because each has too many classes, they are below standard in efficiency. Thus, we have an expensive system that produces poor results.

A study of the map shows that consolidation into not more than two, and preferably one school, is perfectly feasible. By taking advantage of Section 20.26, aid from the state may be had to build a consolidated school building. By taking advantage of Section 40.16, much of the burden of transportation would be borne by the state. The wages of 7 teachers would be saved and could be applied toward getting teachers of a high degree of teaching skill. Besides, in such a consolidated school a high school course could be maintained, likely a town high school with further state aid. By this means the high school students

might go to school in their own community and go home every night. Transportation of children to school offers less difficulty than the transportation of milk or cream, and it is a means of securing to the children of these districts a square deal in education. The education of children must be looked upon as a business if we may expect satisfactory results. Education as carried on according to the showing on this map has not risen to the point where it may be considered as a business.

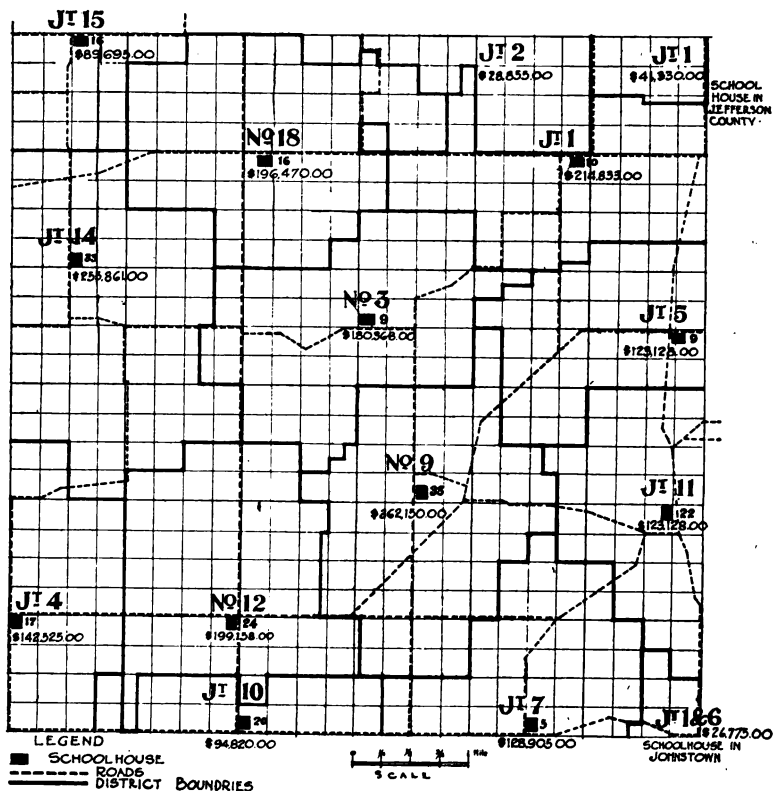


FIGURE 8.—Showing District Where Consolidation is Greatly Needed

NEW BUILDINGS

In the past five years new buildings have been erected in two hundred, two state graded school districts. Many of these are in new districts. Many have been erected to take the places of buildings that were unsanitary and unfit for school purposes in the light of modern standards for school conditions.

What is doubtless the most complete and best equipped two room school in Wisconsin was erected in 1917-18 at Alaska, Kewaunee

County, Frontispiece. This building has a nine-foot basement with plastered walls. The basement contains separate rooms for fuel, the heating and ventilating system, pumping system, Red Cross work, toilets, and shower baths. On the ground floor are two large school-rooms separated by a movable partition so that the two rooms can be turned into one for community purposes. There are also separate rooms for the library, domestic science, and manual training. Moulthrop chair desks are in use and the best of equipment has been provided. Hot water is available for the domestic science work and for the two shower baths. The indirect system of heating and ventilation is ample except on cold, windy days. Then the direct heating system is also used.

DEVELOPMENT OF THE STATE GRADED SCHOOLS BY COUNTIES

The table below shows the distribution of state graded schools by counties. Polk and Brown counties lead in the number of such schools. The mode of development in each is different. Polk is one of the comparatively newer counties. In 1903 there were three state graded schools; in 1917 there were twenty-six. This rapid growth may be traced to the strong desire of the people to have the best schools they can get; to foresight in planning district boundaries and locating schoolhouses; and to strong leadership in their county superintendent.

Number and Distribution of State Graded Schools 1918-19

Total	621	Green Lake	4	Polk	29
Adams	2	Iowa	5	Portage	7
Ashland	6	Iron	4	Price	15
Barron	17	Jackson	7	Racine	10
Bayfield	13	Jefferson	5	Richland	6
Brown	27	Juneau	3	Rock	8
Buffalo	5	Kenosha	8	Rusk	9
Burnett	10	Kewaunee	6	St. Croix	11
Calumet	3	La Crosse	5	Sauk	10
Chippewa	7	Lafayette	4	Sawyer	7
Clark	11	Langlade	12	Shawano	19
Columbia	6	Lincoln	6	Sheboygan	21
Crawford	8	Manitowoc	2	Taylor	9
Dane	20	Marathon	13	Trempealeau	3
Dodge	7	Marquette	12	Vernon	10
Door	12	Milwaukee	21	Vilas	4
Douglas	12	Monroe	6	Walworth	7
Dunn	9	Oconto	7	Washburn	3
Eau Claire	2	Oneida	7	Washington	8
Florence	4	Outagamie	7	Waukesha	18
Fond du Lac	4	Ozaukee	4	Waupaca	11
Forest	6	Pepin	2	Waushara	5
Grant	8	Pierce	5	Winnebago	5
Green	1			Wood	12

Brown is one of the older counties. Its educational development was marked by the prevalence of the small district with the usual box type of school building, badly lighted, heated, ventilated, and furnished. In 1907 there were two state graded schools in Brown county; in 1917 there were twenty-six. This remarkable development is due

to several factors. In the first place, the county superintendents were men of vision who used their influence constantly for better things. In the second place, the school buildings were of such a character that they fell under the terms of the condemnation law. This placed before the districts the problem of securing proper school conditions. Their good judgment favored the rectification of district boundaries and larger schools.

WAYS IN WHICH THE STATE GRADED SCHOOLS MAY BE IMPROVED

The state graded schools are strong in the general spirit with which the work is carried on and especially in the cooperation shown by county superintendents with the state department in administering the graded school law. They may, however, be improved in the following respects:

There is much need of better training for graded school-teachers. Graded school-teachers should have special training for the particular line of work they do. They should come to their work with sounder scholarship. Many of these teachers are young and approach their problems without any serious life experience to help solve them. Maturity of mind and a professional attitude are qualifications that are much to be desired.

In every state normal school there should be a course for the training of teachers for state graded schools. It should be open only to those who elect it. A special class should be organized for principals.

The training of teachers should include instruction in the use of school apparatus and in the operation of the heating and ventilating plant.

TABLE 19—*Distribution Showing Salaries for Teachers in the Several Classes of County Schools 1917-18. Comparison of Salaries in State Graded Schools with Others.*

	Total	Rural	State Graded	Grades below High School	County High School
Total.....	10,911	6,648	1,670	1,332	1,261
\$40-49.....	2,676	2,663	78	32	3
\$50-59.....	4,468	3,219	639	604	6
\$60-69.....	1,930	679	499	569	183
\$70-79.....	767	76	218	90	333
\$80-89.....	359	16	123	11	209
\$90-99.....	196	4	65	8	119
\$100+.....	415	1	48	8	353

The teachers' salary is a pressing problem and it is going to become more pressing. Communities must recognize this and make whatever adjustments they can to meet the situation.

Living conditions are extremely difficult for teachers in many places. It seems pertinent at this time to raise the question of enacting a law that will permit school districts to erect suitable buildings for teacherages.

It would greatly improve school attendance in many districts if there were a better adjustment of the school term to meet the convenience of children who do farm work in fall and spring, and to make it possible to have vacation when the roads are impassable.

To guard against the evils of memoriter work in the schools, abundant reference material in history, geography, and civics should be furnished. So far as possible means should be supplied to visualize school work. Districts should plan to spend a moderate amount to purchase some of these aids every year.

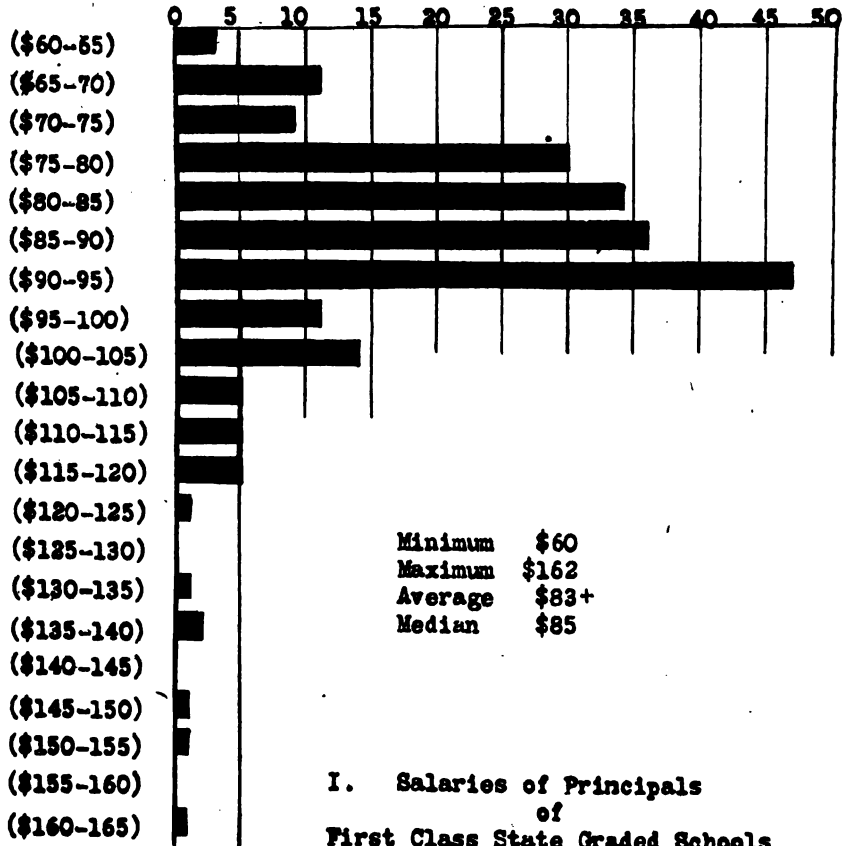


FIGURE 9.—Salaries of Principals of First Class State Graded Schools

School affairs will take on a more business-like aspect if the board holds monthly meetings with the principal present.

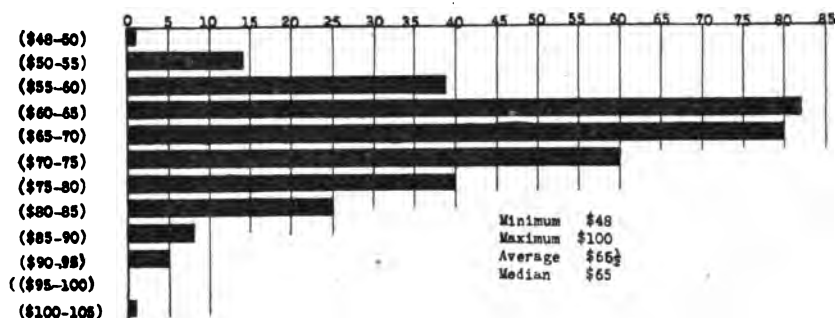
There should be closer cooperation of state graded school boards with the county superintendent in engaging teachers. In engaging teachers two questions should be determined: (1) Is the teacher legally qualified; (2) Is she competent? It is the county superintendent's business to know the answers to these questions. School boards should avail themselves of his advice.

The examinations for state graded school students should be based on the state graded school course of study.

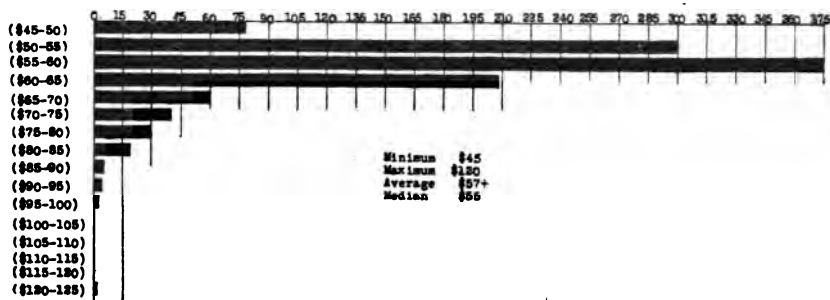
There is need of a modification of the 7th and 8th grade work to meet the ideas of the junior high school.

There is need to encourage more community life with its center at the state graded school. The school society work should be extended to include the patrons of the school.

There is need of more attention to development of the physical side of education through the means of organized recreation.



II. Salaries of Principals of Second Class State Graded Schools



III. Salaries of Assistants in State Graded Schools

FIGURE 10.—Salaries of Principals and Teachers in Second Class State Graded Schools

CHAPTER VIII

SCHOOL COSTS

An important matter for every school to consider is that of ways and means of financing its schools. Without careful consideration of such questions as the kind of education which ought to be purchased for the children of the community, the price to be paid, the ability of the community to purchase good education for its children, together with the way in which funds already appropriated are being spent, a community is likely to find that it is not providing as much as it should for its children, or that it is not spending wisely what it does provide. With a view to providing school boards and school officials with some data upon which to base comparisons of wealth and expenditure, the department has prepared a number of preliminary studies which will be reported briefly in this section.

ABILITY TO SUPPORT SCHOOLS

The first study of this kind presents some figures from a number of Wisconsin schools on the comparative ability of cities to provide for schools—i. e., to purchase educational opportunities for its children. Table 20 gives the per capita wealth based upon the latest available population figures and the real or true property valuation as determined from figures provided by the Wisconsin Tax Commission for 1918. The figures representing property valuation in each city were submitted to the superintendent of schools of the city in question for verification. The figures on population are in most cases based upon the latest estimates of the U. S. Census Bureau. Where estimates later than the 1910 census figures were not available the latter were used.

Certain cities which it would have been desirable to include for many reasons are omitted on account of marked changes in population which are known to have taken place since the latest available population estimates were made. This was the case with such cities as Beloit, Madison, Washburn, and West Allis, where war industries have very materially affected the city's growth. The cities of the table are arranged in groups according to population. The first includes cities of over 25,000 population. The second is made up of those between 10,000 and 25,000. The third group represents cities between

TABLE 20.—*The Ability to Support Schools—Wealth per Capita, 1918*

City	Real and Personal Property True Valuation	Population ¹	Wealth per Capita on True Valuation	Rank in per Capita Wealth
Over 25,000				
Milwaukee	\$605,248,311	436,535	\$1,386	1
Racine	62,546,243	46,486	1,345	2
Kenosha	38,017,485	31,576	1,204	3
Sheboygan	29,806,230	28,559	1,044	4
Oshkosh	36,261,517	36,065	1,005	5
Green Bay	29,424,335	29,353	1,002	6
Superior	45,507,859	46,226	984	7
LaCrosse	28,601,569	31,677	903	8
Average			\$1,109	
Median			1,024	
10,000-25,000				
Janesville	17,071,101	14,339	1,191	1
Appleton	20,908,876	17,834	1,172	2
Manitowoc	15,975,875	13,805	1,157	3
Wausau	17,832,581	19,239	927	4
Fond du Lac	18,903,513	21,113	895	5
Eau Claire	15,582,710	18,807	829	6
Ashland	8,191,576	11,594 ^a	707	7
Marinette	9,972,073	14,610 ^a	683	8
Average			\$945	
Median			911	
5,000-10,000⁴				
Neenah	1,407,549	5,734	\$1,292	1
Watertown	11,327,616	9,074 ^a	1,248	2
Beaver Dam	7,806,326	6,758	1,155	3
Grand Rapids	7,329,717	6,521	1,124	4
Rhinelander	6,204,180	5,637	1,101	5
Waukesha	10,581,590	9,570 ^a	1,085	6
Two Rivers	4,741,443	4,850	978	7
Marshfield	5,433,404	5,783	940	8
Baraboo	5,810,460	6,324	919	9
Menasha	5,153,087	6,081	847	10
Antigo	6,002,116	7,196	834	11
Stevens Point	6,697,396	8,692	771	12
Chippewa Falls	6,852,149	9,395 ^a	729	13
Average			\$1,002	
Median			978	

¹Bureau of Census Estimates for 1916.²Population from Department of Commerce Bulletin 133, estimate of 1916.³No estimate made. Census of 1910.⁴With the exception of Chippewa Falls, Watertown and Waukesha, the population estimates for this group of cities are based on the 1910 census.^aPopulation from Department of Commerce Bulletin 133, estimate of 1916.

5,000 and 10,000. The cities in each group are ranked in column 4 according to per capita wealth. Cities under 5,000 do not appear in the table for the reason that most cities of this size are joint school districts with outlying territory, and no population figures were available for the parts of these districts not within the corporate limits of the city.

In the first group Milwaukee appears as the wealthiest city in per capita of real wealth. Its per capita wealth is more than one and one-

half times that of La Crosse. The average for this group of cities is \$1,109, and the median, or middle amount is \$1,024.

Among cities of the 10,000 to 25,000 class Marinette and Ashland have a much smaller per capita wealth than Janesville, Manitowoc, and Appleton. The advantage of the wealthiest cities over the poorest in this group in ability to provide good schools is relatively greater than in the case of the first group of cities. The average per capita wealth for cities of 10,000 to 25,000 population is considerably smaller, however, than that for the group of largest cities. (See Table 21)

Variations in per capita wealth between cities of from 5,000 to 10,000 population are quite as evident as in the preceding groups. At one extreme we have Neenah and Watertown with more than \$1,200 per person and at the other Stevens Point and Chippewa Falls with less than two thirds of this amount.

If we consider the extremes of per capita wealth without regard to size of city we see that cities like Milwaukee and Racine have nearly double the ability of Ashland or Marinette to support schools. These largest cities have more than \$1300 per capita wealth while Marinette has less than \$700 and Ashland only slightly more. It should be obvious to every reader that the state has a great unsolved problem facing it if it hopes to make *equality of opportunity* for obtaining an education, and *equality of burden* in supporting education, *realities*, as democracy proposes to do.

TABLE 21.—*The Average and Median per Capita Wealth in each Group of Cities*

Population	Average Wealth per Capita on True Valuation	Median Wealth per Capita on True Valuation
Over 25,000.....	1,109	1,024
10,000-25,000.....	945	911
5,000-10,000.....	1,002	978

Table 21 gives the average and median, or middle, per capita wealth for each group of cities in Table 20 and for all of these cities combined. The largest cities are on the average the wealthiest while the second group has the smallest amount of wealth per inhabitant. These figures may be taken as standards of comparison. Cities well above the average in wealth should have little justification for failure to provide good schools. Cities only slightly below the average may be able to make ample provision for educating its children. In the case of cities far below the average we can scarcely hope to find schools equal to those in the wealthiest, particularly if the latter are making determined efforts to provide only the best of schools. Some legislative provision needs to be made whereby poorer communities will be aided relatively more than those abundantly able to take care of themselves.

THE WEALTH BACK OF EACH DOLLAR RAISED FOR SCHOOLS

The second study in this series is reported in Table 22. It deals with the comparative efforts required by cities to provide the kind of education that their children are now receiving. The table gives the real or true wealth back of each dollar expended for schools for the year 1917-18.

TABLE 22—Wealth back of each dollar spent for school purposes

Cities	True valuation	Total expenses	Wealth back of each dollar spent	Rank
<i>Over 25,000</i>				
Madison.....	\$86,365,944	\$277,047	\$240	1
Milwaukee.....	605,248,311	2,593,456	233	2
Racine.....	62,546,243	282,773	221	3
Green Bay.....	29,424,335	151,615	194	4
Oshkosh.....	36,261,517	185,945	195	5
Sheboygan.....	29,806,230	159,503	187	6
Kenosha.....	58,017,485	214,258	177	7
La Crosse.....	28,601,599	194,718	147	8
Superior.....	45,507,859	332,766	137	9
<i>10,000-25,000</i>				
Janesville.....	17,071,101	85,561	200	1
Fond du Lac.....	18,903,513	119,122	159	2
Manitowoc.....	15,975,875	102,454	156	3
Appleton.....	20,908,376	137,926	152	4
Wausau.....	17,832,531	120,453	148	5
Marinette.....	9,972,073	83,056	120	6½
Eau Claire.....	15,592,710	130,277	120	6½
Ashland.....	8,191,576	82,296	100	8
<i>5,000-10,000</i>				
Watertown.....	11,327,616	44,372	255	1
West Allis.....	18,781,096	80,800	232	2
Beaver Dam.....	7,806,326	39,432	198	3
Neenah.....	7,407,549	46,915	158	4
Menasha.....	5,153,087	34,964	147	5
Waukesha.....	10,381,590	74,427	139	6
Rhinelander.....	6,204,180	44,818	138	7
Marshfield.....	5,433,404	39,527	137	8
Two Rivers.....	4,741,443	35,344	134	9
Baraboo.....	5,810,460	45,218	128	10
Chippewa Falls.....	6,852,149	59,259	116	11
Grand Rapids.....	7,329,717	68,730	107	12
Stevens Point.....	6,697,394	65,300	103	13
Antigo.....	6,002,116	72,383	83	14
<i>Under 5,000</i>				
Monroe.....	6,406,043	47,019	136	1
Waupaca.....	2,457,632	22,867	107	2
Phillips.....	1,195,557	17,603	68	3
Washburn.....	1,609,271	33,519	48	4

Note: Cities omitted from this table represent joint districts for which no population figures are available for the portion of the district lying outside of the city.

THE WEALTH BACK OF EACH CHILD ENROLLED

One should perhaps in the interests of absolute accuracy when considering the abilities and efforts made by communities to provide good schools take into account all of the children whose education is being paid for out of the wealth in the community. Such, however, is im-

possible on any large scale with only a limited amount of time available for a study of this kind. If one were to consider all of the money being spent for elementary and high school education by the people of the community he would need to take into account children who attend private and parochial schools as well as those who attend the public schools. The parents of children attending private schools are usually persons of means to whom the task of contributing to the support of the other children of the community offers no real burden and we may

TABLE 23—*Wealth Back of Each Child Enrolled*

City	Enrollment in parochial schools	Enrollment in city schools	Total enrollment	True valuation 1917 assessment	Wealth back of each pupil enrolled	Per cent of pupils in public schools
Over 25,000						
Kenosha.....	1,966	+5,479	7,445	\$38,017,485	\$5,106	74
La Crosse.....	1,585	+5,009	6,544	28,601,599	4,371	45
Madison.....	1,354	+5,562	6,916	66,385,944	9,596	80
Milwaukee.....	25,838	+58,463	84,301	605,248,311	7,171	69
Oshkosh.....	2,165	+5,198	7,363	36,261,517	4,925	71
Racine.....	*1,803	+7,793	9,596	62,546,243	6,518	81
Sheboygan.....	2,087	+4,711	6,798	29,806,230	4,385	69
Superior.....	1,116	+7,012	8,128	45,507,859	5,599	86
Green Bay.....	*1,672	+4,470	6,442	29,424,335	4,568	69
10,000—25,000						
Appleton.....	1,165	+2,799	3,964	20,908,376	5,275	70
Ash and (Estimate).....	900	+2,245	3,145	8,191,576	2,605	71
Beloit.....	000	4,262	4,262	18,359,358	4,448	100
Eau Claire.....	686	+3,161	3,847	15,592,710	4,053	82
Fond du Lac.....	661	+3,883	4,544	18,908,513	4,160	85
Janesville.....	543	2,273	2,816	17,071,101	6,062	81
Manitowoc.....	1,189	2,497	3,686	15,975,875	4,358	68
Marinette.....	931	+2,460	3,391	9,972,073	2,941	72
Wausau.....	1,068	3,550	4,618	17,832,581	3,862	77
5,000—10,000						
Antigo.....	545	1,726	2,271	6,002,116	2,643	76
Baraboo.....	*126	1,096	1,222	5,810,460	4,755	90
Beaver Dam.....	502	1,210	1,712	7,806,326	4,560	71
Chippewa Falls.....	795	1,352	2,147	6,852,146	3,191	61
Grand Rapids.....	581	1,506	2,087	7,329,717	3,512	72
Marshfield.....	*700	+966	1,666	5,433,404	3,261	58
Menasha.....	719	807	1,526	5,153,087	3,377	58
Neenah.....	100	+1,164	1,268	7,407,549	5,842	92
Rhineland.....	*283	1,350	1,633	6,204,180	3,776	82
Stevens Point.....	810	+1,475	2,285	6,697,896	2,931	65
Two Rivers.....	87	807	1,634	4,741,443	2,902	49
Watertown.....	682	965	1,647	11,327,618	6,878	56
Waukesha.....	560	1,631	2,491	10,381,590	4,168	78
West Allis.....	570	2,124	2,694	18,731,096	6,971	79
Under 5,000						
Burlington.....	423	646	1,069	4,461,489	4,173	60
Edgerton.....	*56	668	724	3,541,621	4,892	82
Evansville.....	000	536	536	2,619,138	4,886	100
Ft. Atkinson.....	160	954	1,114	5,493,653	4,931	86
Hayward.....	000	380	380	623,721	2,228	100
Hudson.....	*104	599	703	2,012,905	2,863	85
Kaukauna.....	950	772	1,702	4,909,791	2,885	45
Menasha.....	60	1,064	1,124	6,406,043	5,699	95
Phillips.....	.....	573	573	1,195,557	2,086	100
Stoughton.....	000	1,300	1,300	5,211,666	4,009	100
Washburn.....	286	124	410	1,609,271	3,925	80
Waupaca.....	000	730	730	2,457,632	3,367	100

* Taken from annual report.

* Includes deaf and blind school

therefore dismiss this phase of the question. In the case of parochial schools it is somewhat different. A number of Wisconsin cities have large numbers of children attending these schools. Oftimes the parents of these children are persons of only moderate means. With these facts in mind Table 23 has been prepared. This shows the real wealth back of each child enrolled in both public and parochial schools, and also the per cent of children enrolled in public schools.

THE EFFORT REQUIRED TO SUPPORT HIGH SCHOOLS

Wisconsin has a large number of what are known as district high schools and a smaller number of union high schools. The territory of the district high schools in most cases coincides with the territory of the elementary schools of the community, though not always. A union high school district always includes more territory than does the elementary school district in which the high school is located. Not one includes less than a township (usually 36 square miles), and some include two or even three townships. It has been the policy of the state to aid in the development of these schools. Through the state's generous policy high schools have been established and have been enabled to continue in many instances where they perhaps would not have been able to do so, had the state been less inclined to foster secondary education.

Under the present law union high schools having a principal and one assistant (i. e.—teacher) receive from the state one-half the cost of instruction up to \$900.00; those having two assistants are given one-half the cost of instruction with a maximum of \$1200.00. Similarly those with three or more assistants receive a maximum of \$1500.00. In addition each union high school may receive special aid for offering such courses as manual training, domestic science, agriculture, and commercial work. For such courses one-half of the cost of instruction with a maximum of \$250.00, except in commercial work where the limit is \$350.00, is paid by the state.

District high schools receive an equal amount of special aid for offering such courses as those just mentioned. Under certain limited conditions both union and district high schools may receive additional aid to the extent of the instructor's salary for teacher training courses. The amount for such aid has usually been limited to \$1,000.00. The general aid for district high schools is much less than in the case of union high schools. The district high schools may receive one-half of the cost of instruction with a limit of \$500.00.

In actual practice the amount of aid received has often been much less than that which these schools might hope to receive under the law. The total legislative appropriation has been insufficient, making necessary a pro rating. In 1917-18 the special aid in all courses but teacher training was limited to 63 per cent of the amounts indicated above which these schools were led to expect. The district high schools received only 72 per cent of the expected amount for general aid.

One principle upon which state aid should be distributed, in the opinion of many persons, is that of need. Poor districts should be aided to the extent that they will be able not only to provide schools but to provide schools of a better quality. It was never intended that the state should pay the bill when the district was abundantly able to pay its own expenses except insofar as some help encouraged them to better efforts.

The second principle, that communities even though able to support their own schools are stimulated to provide a better or more enriched type of training for the children, is not without merit and has undoubtedly influenced legislation in this state to some extent. There is a danger, however, that individual communities may impose upon the state's good intentions if a proper balance is not maintained between state and local support. Others even with liberal aid may sometimes be hard pressed to furnish the kind of education needed.

How evenly the burden of supporting high schools is distributed for a small number of union and district high schools may be seen in Tables 24 and 25. The tables indicate the real or true property valuation in 1917-18, as computed from the assessment rates furnished by the Wisconsin Tax Commission and the assessed valuation of property in each district as reported by the school officials; the total spent for schools during 1917-18; the reimbursements which each district received through tuition fees collected, and the amount of the state aid to which it was entitled; the net amount required to be raised by the district after deducting reimbursements; the rate of taxation (on true valuation) necessary to raise the amount which the district must raise itself; and the real or true wealth back of each dollar to be raised locally. It will readily be seen from the tables that differences in wealth and in the effect of the aid received from the state distribute the burden of supporting schools very unequally. By reference to column 8 of Table 24 it will be seen that if we consider property as assessed at its true valuation some district high schools are taxing themselves at a rate only slightly more than one-fifth as large as others to support the kind of schools they are now providing or, to state it another way, some are nearly five times as able (Column 9) to support their high schools as others. The difference is even more striking in the case of union high schools. With the help of state aid Arena and Marshall would need to tax themselves the equivalent of but 0.4 of a mill on each dollar of property to provide the kind of high school education their children now receive while Eagle River and Elcho would need to levy more than 3.0 mills, i. e.—a rate over seven times as high. The ability of Arena and Marshall to support high schools when measured in terms of the real wealth back of each dollar raised locally for high schools (Table 25, column 9) is more than seven times that of Elcho and Eagle River. The two former have more than \$2,200.00 of wealth for every dollar that must be raised locally for high schools while the two latter do not have over \$320.00. In other words these latter two have \$1,900.00 less wealth back of each dollar that must be raised locally for high school purposes. Certainly the

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TABLE 24.—The Effort Required to Support District High Schools, 1917-18

District High Schools	True Valuation	Total Cost	Tuition Received	High School Aid ¹	Special Aid ¹	Total Reimbursements	Net Cost	% of Net Cost on True Valuation	Real Wealth back of each \$1 (Net) spent for schools	% of Total Cost on True Valuation
Albany	\$688,000	\$3,214	\$556	\$500	.....	\$1,056	\$2,158	.0023	\$435	.0024
Albany	1,556,700	8,928	2,330	500	\$738	3,579	5,349	.0034	298	.0059
Alma	744,500	3,100	198	500	.....	693	2,402	.0032	311	.0042
Altoona	368,400	2,448	69	500	151	720	1,728	.0047	218	.0066
Amery	604,800	6,000	1,908	500	250	2,658	3,342	.0055	181	.0099
Argyle	669,900	5,185	227	500	.....	727	4,459	.0067	150	.0077
Bangor	1,292,800	4,800	150	500	475	1,134	3,665	.0029	244	.0069
Benton	1,309,800	3,870	299	500	.....	799	2,571	.0020	500	.0026
Birchwood	672,200	2,100	99	500	.....	599	1,501	.0022	449	.0081
Biramwood	771,800	5,500	818	500	680	2,008	3,492	.0045	221	.0071
Black Earth	795,500	4,577	433	500	.....	983	3,644	.0046	218	.0058
Bloomer	1,434,200	6,198	1,080	600	250	1,780	4,418	.0031	325	.0042
Bloomington	1,206,400	5,308	1,015	.....	.....	1,015	4,293	.0033	281	.0044
Brillon	1,322,000	5,418	1,033	500	459	1,927	3,491	.0025	407	.0062
Cadott	522,600	2,375	461	500	.....	981	1,414	.0027	370	.0045
Cassville	880,800	4,225	704	500	201	1,405	2,820	.0032	312	.0048
Darien	644,100	2,558	720	500	165	1,381	1,177	.0018	547	.0040
Delavan	5,136,200	9,281	1,079	500	500	2,079	7,202	.0014	713	.0018
Durand	1,290,100	8,713	1,380	500	433	2,573	6,340	.0049	208	.0068

¹ Assuming that each school receives the full share to which it is entitled by law.

TABLE 25.—*The Effort Required to Support Union High Schools, 1917-18*

Union High Schools	True Valuation	Total Cost	Tuition Received	High School Aid ¹	Special Aid ¹	Total Reimbursements	Net Cost	% of Net Cost on True Valuation	Real Wealth back of each \$1 (Net) spent for schools	% of Total Cost on True Valuation
Arena	\$3,624,000	\$3,185	\$5	\$1,200	\$419	\$1,624	\$1,562	.0004	\$2,322	.0009
Bayfield	2,178,200	7,783	.....	1,500	750	2,250	5,533	.0025	334	.0036
Blue River	1,094,400	4,179	1,139	1,183	250	2,572	1,606	.0015	662	.0039
Crivitz	961,600	2,898	.....	900	.....	900	1,998	.0021	481	.0080
De Forest	3,944,700	7,679	886	1,500	500	2,886	4,793	.0012	923	.0019
Eagle River	989,600	5,121	552	1,200	280	2,082	3,039	.0031	323	.0052
Elcho	635,900	2,735	.....	743	.....	743	1,992	.0031	319	.0043
Fried	1,544,500	2,157	.....	900	.....	900	1,257	.0008	1,229	.0014
Gilmanton	1,976,800	2,987	216	1,074	500	1,790	1,197	.0006	1,651	.0015
Holmen	1,843,900	4,907	166	1,463	500	2,129	2,779	.0015	664	.0027
Laona	3,477,500	6,868	.....	1,500	500	2,000	4,868	.0014	714	.0020
Manawa	2,760,200	6,224	1,772	1,500	146	3,418	2,806	.0010	984	.0023
Marshall	3,293,600	3,523	.....	1,200	486	2,047	1,476	.0004	2,233	.0011
Middleton	3,145,351	5,346	108	1,300	600	2,208	3,138	.0010	1,002	.0017
Mount Hope	1,597,500	3,282	36	1,175	500	1,711	1,571	.0010	1,017	.0021
North Crandon	1,642,800	3,511	140	900	.....	1,040	2,471	.0015	635	.0021
Seneca	1,941,500	2,606	216	1,065	.....	1,301	1,305	.0007	1,483	.0013

¹ Assuming that each school receives the full share to which it is entitled by law.

burden of supporting high schools falls very unevenly on these districts.

If the schools that are now taxing themselves at a low rate were to tax themselves at rates equal to those of the highest they doubtless would be able to give their children a kind of secondary education unexcelled anywhere.

• If we compare the district high schools, which as a class receive much less aid from the state, with the union high schools it will be seen that the union high schools are relatively the much better able of the two to support good schools. The average mill rate required of these union high schools is .0012 while that of the district high schools of the table is .0029, or more than twice as high. The poorest district high school must levy the equivalent of nearly 7 mills while the wealthiest union high school needs to levy less than $\frac{1}{2}$ mill or less than one-thirteenth as much to provide educational advantages of supposedly equal quality. Obviously the burden of supporting high schools does not fall equally on these communities. It would seem that some means should be found whereby the burden of supporting high schools can be more nearly equalized throughout the state. Poorer districts should be assisted relatively more than wealthier. It would seem also that steps should be taken to equalize more nearly the very great difference in the effect of the aid granted to union high schools and to district high schools.

The disproportion of wealth to amount of money required for high schools may be seen more clearly perhaps if we leave out of consideration for the time being all reference to state aid. Column 10 in each of Tables 24 and 25 gives the rate of taxation on true valuation which would be required to support the high schools which these communities are now providing if the entire bill were to be paid locally. The average rate required in these union high schools would be .00205 and that in district high schools .0042. The union high schools again appear to be much better able to provide good training for their boys and girls. Of these district high schools the poorest would need to tax itself more than five times as high as the wealthiest. The poorest of these union high schools would likewise be required to levy a rate almost five times as high as the wealthiest, but the *poorest district high school* would be compelled to levy a tax more than *ten times* as great as that of the *wealthiest union high school* to offer the advantages they now do. Such is the relative ability of these districts to support schools. Democracy has not smiled by any means equally upon all districts. No administration of state finance that is based upon common sense and justice can ignore these differences.

PER PUPIL COSTS IN CITY SCHOOLS

The question is often raised, How much should a city spend for various items such as salaries, supplies, fuel, janitor service, etc.? No set of standards based upon the relation between expenditure of money and achievement of pupils has been established. Such, i. e.—

TABLE 26.—The cost per pupil in average daily attendance in cities, 1917-18

Cities	*General Control	Salaries of Teachers and Principals	Wages of Janitors and Other Employees	Janitor's Supplies	Fuel	Water, Light and Power	Other Operation Expenses	Maintenance	Instructional Supplies	Miscellaneous	Grand Total
<i>Over 25,000</i>											
Green Bay.....	\$1.60	\$27.35	\$2.69	\$0.13	\$3.26	\$0.52	\$0.23	\$1.42	\$2.28	\$0.41	\$39.94
Kenosha.....	2.18	33.52	4.47	.41	3.37	.69	.07	1.97	2.86	2.09	51.63
La Crosse.....	2.14	33.37	3.56	.85	3.63	.62	.24	1.84	2.90	1.64	50.33
Madison.....	1.81	37.68	3.14	.15	5.41	1.36	.02	2.03	2.29	1.25	55.14
Milwaukee.....	1.56	36.18	2.96	.09	3.28	1.42	.06	4.95	2.27	1.13	53.89
Oshkosh.....	1.32	29.57	3.40	.44	4.79	1.36	.....	.97	1.72	1.71	45.23
Racine.....	1.53	28.03	2.70	.15	4.26	.24	.11	2.63	1.11	1.74	42.55
Sheboygan.....	1.46	30.90	2.48	.16	2.79	.11	.....	1.85	.90	1.53	42.18
Superior.....	1.78	37.49	4.88	.11	4.30	.41	.....	2.97	3.49	1.15	56.53
Average.....	\$1.71	\$32.97	\$3.36	\$0.22	\$3.90	\$0.75	\$0.13	\$2.29	\$2.21	\$1.40	\$48.62
<i>10,000-25,000</i>											
Appleton.....	\$0.79	\$36.65	\$4.05	\$0.61	\$4.42	\$1.19	\$0.54	\$5.03	\$2.41	\$1.09	\$56.83
Ashland.....	2.05	30.41	3.97	.25	3.43	.56	.....	2.00	2.01	.29	44.97
Beloit.....	1.54	20.45	2.77	.11	3.39	.83	.10	2.06	1.68	.37	33.80
Eau Claire.....	2.27	32.41	3.39	.21	4.27	1.01	.....	2.50	4.21	2.30	52.57
Fond du Lac.....	1.63	26.31	2.47	.23	2.15	.76	.12	1.75	.94	.58	36.94
Janesville.....	2.44	30.21	4.28	.66	3.46	.46	.....	1.75	1.80	.94	46.00
Marquette.....	2.55	24.23	3.02	.06	2.88	.97	.....	2.72	2.01	.96	39.40
Wausau.....	1.61	25.80	2.96	.47	4.06	.46	.....	1.24	1.96	1.99	40.55
Average.....	\$1.86	\$28.31	\$3.36	\$0.33	\$3.57	\$0.78	\$0.25	\$2.39	\$2.13	\$1.07	\$43.88

*Includes Superintendent's salaries.

TABLE 26.—The cost per pupil in average daily attendance in cities, 1917-18—Continued

Cities	General Control	Salaries of Teachers and Principals	Wages of Janitors and other Employees	Janitor's Supplies	Fuel	Water Light and Power	Other Operation Expenses	Maintenance	Instructional Supplies	Miscellaneous	Grand Total
<i>5,000-10,000</i>											
Antigo.....	\$1.87	\$29.29	\$3.55	.....	\$5.80	\$0.64	.....	\$2.35	\$2.72	\$3.64	\$40.95
Baraboo.....	1.32	31.41	4.83	.40	5.20	.68	.....	1.60	2.36	.57	46.79
Beaver Dam.....	2.40	24.28	3.34	.90	4.06	.57	.10	1.35	1.25	.98	39.23
Chippewa Falls.....	2.95	32.10	3.73	.27	5.97	.63	.30	2.20	2.04	1.51	51.70
Grand Rapids.....	3.04	30.74	5.22	.58	6.47	1.14	.22	4.41	1.41	1.92	54.15
Marshfield.....	1.93	33.86	4.04	.25	4.97	.50	.....	1.50	1.11	1.70	49.16
Menasha.....	3.34	31.05	3.96	.70	5.10	.65	.44	3.46	4.96	1.40	55.06
Neenah.....	1.84	27.72	3.52	.51	4.49	1.13	.15	4.62	1.31	1.34	46.63
Rhinelander.....	1.52	23.77	3.76	.40	3.81	.65	.....	1.86	2.36	.88	39.01
Two Rivers.....	4.15	28.31	3.85	.22	4.01	.57	1.53	3.78	2.84	.96	50.27
Wautown.....	2.94	32.45	3.80	.64	5.63	2.13	.....	1.49	1.90	.37	51.35
Waukesha.....	2.54	32.50	2.73	.25	3.58	.61	.....	1.92	1.70	2.78	47.61
West Allis.....	1.74	32.39	3.32	.15	2.93	.85	.18	1.44	2.28	1.81	47.09
Average.....	\$2.43	\$29.99	\$3.82	\$0.44	\$4.78	\$0.83	\$0.42	\$2.46	\$2.10	\$1.40	\$46.47
<i>Under 5,000</i>											
Burlington.....	\$2.39	\$38.77	\$3.11	\$0.57	\$2.81	\$0.69	\$0.79	\$3.65	\$4.28	\$0.50	\$57.56
Edgerton.....	2.37	31.76	2.78	.....	4.60	1.15	.....	3.21	3.46	2.24	51.57
Evansville.....	2.16	29.98	2.22	.02	2.81	.31	.29	1.85	1.96	.77	42.37
Fort Atkinson.....	1.87	28.50	2.66	.50	3.46	.54	.....	1.77	1.68	1.50	41.88
Hayward.....	2.40	27.85	2.88	.36	4.17	.13	.....	0.14	3.77	.52	51.43
Hudson.....	3.21	31.38	2.70	.15	2.92	.27	.40	1.55	3.77	.52	44.94
Kaukauna.....	1.54	37.61	2.34	.90	3.63	4.74	.23	4.74	3.18	.94	59.85
Monroe.....	1.90	27.81	3.85	.48	4.72	1.17	.21	3.90	2.21	2.37	48.62
Phillips.....	1.87	24.12	2.50	.28	2.72	1.24	.....	3.94	1.81	1.34	34.66
Stoughton.....	.97	28.31	2.81	.76	1.81	.76	.02	2.58	2.22	1.34	41.53
Washburn.....	1.80	24.72	3.53	.49	2.80	.39	.11	3.69	3.26	.24	40.53
Waubesa.....	1.25	25.28	1.76	.16	3.00	.63	.06	1.88	1.90	.44	36.36
Average.....	\$1.94	\$29.67	\$2.77	\$0.42	\$3.26	\$0.92	\$0.26	\$3.24	\$2.58	\$1.01	\$45.95

the *quality* of learning produced in the children, would of course be the most desirable basis of determining the amounts to be expended. Such standards have yet to be developed in city school administration. The most serviceable standards to be had for the present are those representing average expenditures for schools offering relatively similar advantages and relatively similar in size and environment. Wisconsin cities of the same population groups are probably more like each other in advantages offered and in surrounding conditions than they are like cities in California or Texas, or like cities in England or China. We may, therefore, derive tentative cost standards for various items of school expense by comparing Wisconsin cities in each group with each other. Table 26 gives the expenditure per pupil in average daily attendance for general control; salaries of teachers, principals and supervisors; expenses of operation including janitors and other employees, fuel and other expenses of operation; maintenance; instructional supplies; miscellaneous items; and the total for all purposes.

The facts of Table 26 are summarized in Table 26a which shows the average for each major item of expense in each group of cities.

26a.—Average Cost per Pupil in Average Daily Attendance 1917-18

	Number of Cities	General Control	Salaries of Teachers and Principals	Total Opera- tion	Main- tenance	Total Instruc- tional supplies	Total Miscel- laneous
Cities over 25,000..	9	\$1.71	\$32.67	\$8.32	\$2.29	\$2.21	\$1.40
10,000-25,000.....	8	1.86	28.81	8.13	2.39	2.13	1.07
5,000-10,000.....	14	2.43	29.99	10.29	2.46	2.10	1.40
Under 5,000.....	12	1.94	29.67	7.51	3.24	2.58	1.01
Average of four group averages.....		1.99	30.16	8.56	2.60	2.26	1.22

The total cost per pupil in average daily attendance, column 12, is fairly uniform for the four groups of cities. The largest cities spend slightly less per pupil than cities of 5,000 to 10,000 population. The smallest per pupil expenditure is in the second group, where it will be recalled, Table 20, the per capita wealth is smallest. It would seem that relative wealth is effecting to a certain extent the kind of education which cities are buying for their children. The fact that cities of 5,000 to 10,000 population spend over 5 dollars more on each pupil in average daily attendance than do cities of 10,000 to 25,000 population should give pupils attending school in the former a material advantage.

When the distribution of costs between the various items of expense are considered it will be seen that cities of 10,000 to 25,000 population are able to set aside less money per pupil for teachers' salaries. Thus the total expended per pupil appears to be reflected directly in the

quality of instruction purchased. Schools in the largest group appear to be more efficiently managed than in cities of the third group. Out of a total expenditure of \$48.66 per pupil the former is able to devote \$32.72 of this amount to salaries while the latter devotes only \$30.23 out of a total of \$49.22 to salaries for teaching. Even if we include in these figures the amount spent for general control (which includes the superintendent's salary) the largest cities are able to set aside almost two dollars per pupil more for instruction and general management than cities between 5,000 and 10,000 population in spite of the fact that the latter have a larger total expenditure per pupil. One reason why the largest cities are apparently more efficiently managed lies perhaps in the fact that through their larger organization with large buildings and classrooms fully occupied they are able to decrease the relative costs of fuel and janitor service. *Thus we have an argument for larger and fewer building units to permit greater operating efficiency.* The relative proportions of expenditure devoted to each item of the budget for current expense will be treated in the section following:

PERCENTAGE OF CURRENT CITY SCHOOL EXPENDITURES FOR VARIOUS PURPOSES IN 1917-18

Good administration of school finance demands a proper distribution between the different items of the budget. Provision for instruction is the primary object of all school expenditures. Expenditures for all other items are secondary and contribute to the main object of the schools which is to train children. Buildings, fuel, janitors' services and supplies, and repairs are legitimate items of expense only because they help to bring about conditions which make good teaching possible. Hence efficiency in the distribution of school costs is to be measured in terms of the proportion of the school's funds which can be set aside for the purchase of instruction without lowering its efficiency indirectly through devoting too small a proportion to other items.

Table 27 shows the percentage of the total cost which goes for each item of expense in the cities treated in the preceding section.

In table 27a the averages for each group of cities and for all of these cities combined are given. The proportion devoted to instruction varies from 67.3% in the largest cities to 62% in our third group. If we include general control the figures are 70.9 and 67 respectively. The largest group of cities set aside more for salaries and require less for general control than any other group. Fuel costs them less, while janitor service costs relatively more than in the smallest cities. This may be due to the fact that janitors in small cities are frequently poorly paid with the result that the service rendered is inferior in quality. If schools are to take the average for all cities of Table 27 as tentative standards they will spend approximately 4.3% for general control, 64.7% for salaries, 4.8% for instructional supplies, 7.1% for janitor service, 8.3% for fuel, 2.7% for other expenses of operation, 5.5% for maintenance, (i. e.—Repairs and upkeep), and 2.6%

TABLE 27.—Percentage of Total Cost for Each Item of Expense, 1918 Reports

Cities	*General Control	Salaries of Teachers and Principals	Wages of Janitors and other Employees	Fuel	Other Operation Expenses	Maintenance	Instructional Supplies	Miscellaneous
<i>Over 25,000</i>								
Green Bay.....	4.01	68.47	6.74	8.16	2.33	3.55	5.71	1.02
Kenosha.....	4.22	68.92	5.65	6.52	2.77	3.82	5.54	4.65
LaCrosse.....	4.35	68.24	7.07	7.20	2.47	3.65	3.93	3.25
Madison.....	3.58	67.34	5.69	9.82	2.77	3.05	4.15	2.77
Milwaukee.....	2.89	67.14	5.49	6.59	2.69	2.19	4.21	2.10
Oshkosh.....	2.71	65.89	7.51	10.53	3.93	2.13	3.80	3.78
Racine.....	3.71	65.38	6.84	10.01	1.13	6.18	2.61	4.09
Sheboygan.....	3.44	73.23	5.83	6.61	.64	5.39	2.13	3.63
Superior.....	3.15	66.26	8.62	7.60	.92	5.25	6.17	2.93
Average.....	3.54	67.31	6.89	8.07	2.15	4.65	4.47	2.91
<i>10,000-25,000</i>								
Appleton.....	1.39	64.49	7.12	7.78	4.12	8.94	4.24	1.92
Ashland.....	4.56	67.62	8.83	7.63	1.80	4.45	4.47	1.64
Beloit.....	4.56	60.59	8.20	11.51	3.08	6.09	4.97	1.09
Eau Claire.....	4.32	61.65	6.45	8.12	2.32	4.76	8.01	4.37
Fond du Lac.....	4.41	71.22	6.69	5.82	3.00	4.74	2.55	1.57
Janesville.....	5.30	65.97	9.30	7.54	2.44	2.80	3.91	2.04
Marquette.....	6.47	61.50	7.67	7.31	2.61	6.90	5.10	2.44
Wausau.....	3.97	63.63	7.30	10.01	2.29	3.06	4.83	4.91
Average.....	4.37	64.54	7.70	8.21	2.71	5.34	4.76	2.37

* Includes superintendents' salaries.

TABLE 27.—Percentage of total cost for each item of expense, 1918 reports—Continued

Offices	General Control	Salaries of Teachers and Principals	Wages of Janitors and Other Employees	Fuel	Other Operation Expenses	Maintenance	Instructional Supplies	Miscellaneous
<i>5,000-10,000</i>								
Antigo.....	3.74	53.64	7.11	11.79	1.28	4.70	5.45	7.29
Baraboo.....	2.70	64.38	9.90	10.66	3.07	3.28	4.84	1.17
Beaver Dam.....	6.12	61.89	8.51	10.35	4.00	3.44	3.19	2.50
Chippewa Falls.....	5.71	62.09	7.21	11.55	2.82	4.25	3.95	2.92
Grand Rapids.....	5.61	56.77	9.64	11.95	3.58	3.14	2.60	1.71
Marshfield.....	3.93	68.88	8.22	10.11	1.52	3.05	2.26	2.03
Menasha.....	6.07	56.39	7.55	9.26	3.25	6.28	9.01	2.54
Neenah.....	3.94	59.45	7.20	9.63	3.84	9.91	2.81	2.87
Rhineland.....	3.90	60.93	9.64	9.77	2.69	4.77	6.05	2.25
Two Rivers.....	8.25	56.32	7.66	7.98	4.71	7.52	5.65	1.91
Watertown.....	5.73	63.19	7.40	10.96	5.40	2.90	3.70	1.72
Waukesha.....	5.34	68.26	5.73	7.52	1.81	4.03	1.47	5.84
West Allis.....	3.70	63.78	7.05	6.22	2.51	3.06	4.84	3.84
Average.....	4.98	62.00	7.91	9.83	3.08	5.02	4.29	2.89
<i>Under 5,000</i>								
Rurlington.....	4.15	67.35	5.41	4.88	3.56	6.84	7.44	0.87
Edgerton.....	4.60	61.58	5.39	8.92	2.23	6.23	6.71	4.84
Evansville.....	5.10	70.76	5.24	6.63	1.46	4.77	4.62	1.82
Fort Atkinson.....	4.46	68.05	6.35	8.27	2.48	4.23	2.58	3.58
Hayward.....	4.66	54.15	5.60	8.11	1.98	17.77	7.34	1.42
Hudson.....	7.14	69.83	6.01	8.10	1.82	3.45	4.09	1.16
Kaukauna.....	2.57	62.84	3.91	6.50	9.81	7.92	5.31	1.57
Monroe.....	3.91	57.20	7.92	9.71	3.82	8.02	4.55	4.87
Phillips.....	5.40	69.59	7.21	6.84	1.50	2.71	5.22	1.53
Stoughton.....	2.33	63.09	6.76	4.35	3.70	6.21	5.34	3.22
Waubesa.....	3.20	60.92	8.82	6.90	2.44	9.09	8.04	3.59
Wausau.....	3.44	69.53	4.84	8.25	2.34	5.17	5.22	1.21
Average.....	4.25	64.99	6.12	7.12	3.01	6.79	5.54	2.18

* Includes superintendents' salaries.

for miscellaneous. How this distribution compares with cities elsewhere may be seen by reference to table 27b. The figures of this table, based upon Strayer's study of costs in American cities, made in 1905, have been quite widely used as standards.

TABLE 27a.—Average Percentage of Total Cost Spent for Each Item of Current Expense 1917-18

	Number of Cities	General control	Salaries of teachers and Principals	Wages of Janitor and other Employees	Fuel	Other Operation Expense	Maintenance	Instructional Supplies	Miscellaneous
Cities over 25,000.	9	3.5	67.3	6.9	8.1	2.2	4.7	4.5	2.9
10,000—25,000	8	4.4	64.5	7.7	8.2	2.7	5.3	4.8	2.4
5,000—10,000	14	5.0	62.0	7.9	9.8	3.1	5.0	4.3	2.9
Under 5,000	12	4.3	64.9	6.1	7.1	3.0	6.8	5.6	2.2
Average		4.3	64.7	7.1	8.3	2.7	5.5	4.8	2.6

TABLE 28.—Standard Per cent of Current City School Expenditures for Various Purposes as Determined by Strayer, 1905

	% of Totals	
Teaching & supervision from.....	70 %	to 75 %
Supervision alone	7 "	to 10 "
Teaching	60 "	to 68 "
Janitors' salaries	5 "	to 7 "
Textbooks and supplies	4 "	to 6 "
Fuel	5 "	to 7 "
Repairs	3 "	to 5 "

Another study of school cost distribution in large cities was made by Rugg in 1915 in connection with the St. Louis survey. The essential facts of his study and how they compare with similar facts in Wisconsin cities will be seen by reference to Table 28a. These larger cities devote on the whole a much larger proportion of their expendi-

TABLE 28a.—Average Per Cent of Current City School Expenditures Devoted to Various Purposes in Large Cities

	Adminis- tration (General Control)	Supervision and Instruction	Opera- tion	Main- tenance	Miscel- laneous
21 Large U. S. Cities.....	3.98	80.43	10.74	4.84	.....
Wisconsin Cities	4.29	69.47	18.20	5.45	2.59

ture toward the purchase of instruction than do Wisconsin cities. School administrators and school officers will need to study carefully the question of how to improve their present distribution of school costs between expenses for instruction and expenses for other purposes. If large schools can devote 80% of all they spend toward the purchase of teaching and supervision, as found by Rugg's study, and at the same time make adequate provision for the various other items on a 20% allowance, then Wisconsin city schools are not well managed. They appear on the whole to be devoting about 15% less of their expenditure for current purposes than these larger American cities are toward purchasing good instruction. Wisconsin cities now spend 35% of all they spend, for such items as general control, operation, maintenance and miscellaneous items, while these larger cities get along on 20%.

CHAPTER IX

"SCIENTIFIC MANAGEMENT" IN EDUCATION

Since September, 1916, the department has engaged in furthering what is a comparatively new feature in the field of education,—that of educational measurements. While comparatively new, yet it is in keeping with the trend toward more scientific management in fields such as agriculture and business. Its sole aim is to increase efficiency in matters of education. In a broad sense its work is to find out what the schools accomplish and to evaluate contributing factors. Some phases of education commonly included within its scope are studies which seek to discover the proportion of children in the state who are really in school; the success of measures for enforcing attendance; the rates of progress of those in school, the amount of schooling completed by those who leave; the preparation, training and salaries of teachers; the nature and amount of subject matter covered in the course of study; the relative emphasis given to different subjects; the adequacy of instructional materials provided in the way of textbooks and other teaching equipment; the adequacy of school buildings; the cost of providing various types of education or facilities for education; the distribution that is made of funds available for support of the schools; and the ability of communities to support good schools. Another very important phase of education with which educational measurements are concerned is the question of what the children have acquired in the way of ability in arithmetic, reading, spelling, history, science and the other subjects. This latter feature of the work deals with the results of the teaching and the probable causes of successes or failures. This phase of educational measurements has received more attention than many of the others because of its fundamental nature. Some little attention has also been given to school building surveys. One complete survey of a city school was directed by the supervisor in charge of educational measurements. This survey which gives the views of the state department on practically all phases of city school administration is published separately under the title of "An Educational Survey of Janesville, Wisconsin." More and more attention will be given to the other types of investigation as opportunity permits and as need arises.

STATE WIDE USE OF STANDARD TESTS

In measuring the results achieved in the various school subjects much attention has necessarily been given to standard tests. (A standard test is one that has been given thousands of times, making it possible to tell how well children of a given grade should do.) This has necessitated meeting with teachers, principals and superintendents for the purpose of instructing them as to ways and methods of procedure in giving the tests, scoring the results and interpreting the results. An important feature of the latter type of meeting is the discussion of remedial measures in instruction or administration. Members of the department frequently direct the giving of the tests in person. At other times extended conferences of normal school instructors, principals and superintendents have been held for more intensive study of standard tests and their uses. The subject has frequently been presented by members of the department at teachers' institutes and to groups of students in training schools and normal schools. Recently the department has prepared a course of study in educational measurements to be used in normal schools offering such courses.

The department has always stood ready to offer assistance to any schools asking it whenever at all possible. It has endeavored to give helpful suggestions as to the particular tests to be used. Outlines and specific directions for giving and scoring particular tests have been prepared and distributed. The results reported by various schools have been assembled and summarized at the office of the state superintendent. On the basis of these summaries reports have been made to the schools, enabling them to view the performances of pupils in their own schools in the light of those of other schools. This has had a stimulating effect on many schools. Some little attention has been given to the preparation of new tests. A report giving the results on standard tests given during the school year 1916-17 has been issued in the form of a bulletin entitled "A Report on the Use of Some Standard Tests for 1916-17." A bulletin reporting the results of tests given during 1917-18 is in the course of preparation.

THE USES OF TESTS

The increasingly extensive use each year of standard tests in city and rural schools throughout the country is revealing the many uses which tests serve. The testing of thousands of children is enabling us to establish standards of classroom achievement for all grades and ages in the several subjects tested. We have definite objective evidence of the results of our teaching. Hitherto we have had no standards of judgment except the ideas of individual teachers, supervisors and superintendents as to the ability actually being acquired by pupils as they progressed through the grades, or as to what ought to be achieved.

Now when a fifth grade class makes a score of 28 on the Woody addition scale, when the standard is 23, we have a much more definite idea than expressed in mere opinion, that this class is doing good work; and when an eighth grade section makes a score of 6.8 on the Thorndike Reading Scale when the sixth grade standard is 6.5 and the eighth grade standard 7.5, we know that those pupils need very definite help before going on into the high school. -

Supervisors and teacher can know how one city compares with another in teaching results; they can measure progress from grade to grade; determine how grades overlap each other; compare the several classes in different schools in the same grade; and note the differences between individuals within the same class. Such objective measures permit us to judge the method in use by the actual results obtained and aid in the development and evaluation of new methods. The teacher can, by careful study of individual results, diagnose the needs of individual pupils and discover special ability and weakness. She has a more reliable guide for promotions and with the superintendent can classify and grade pupils more accurately.

The repeated use of tests reveals that almost every grade has in it pupils who far exceed the standard of work expected of children of their age and grade, while others in the same grade may be able to accomplish no more than the quality of work demanded of pupils one and even two grades below. Perhaps one of the greatest benefits resulting from the use of standard tests is the growing realization of the importance and necessity of grouping pupils according to ability and of providing greater opportunity for the brighter children. The grouping of children according to ability permits the best growth for the inferior and average children, since subject matter and methods may be adapted to their particular needs and makes it possible for the abler pupils to work at the top level of their ability and so advance more rapidly in accordance with their superior power.

With the definite measures of progress teachers and supervisors have a basis for consideration of aims and purposes, for the revision of courses of study and for the selection of textbooks. The amount of time to be devoted to each subject for the most economical accomplishment of the best results can be determined in part by actual results as revealed by testing.

Pupils and teacher are stimulated to new effort when they can see definitely what they are accomplishing and the teacher develops both a greater knowledge of and a more scientific attitude toward the work of the school.

The superintendent who uses standard tests in his system can show both his board and the community the success or needs of the school in definite tangible form.

EXTENT OF THEIR USE IN WISCONSIN

The extent to which standard tests have been applied may be judged from the reports by school superintendents and principals to the office

of the state superintendent. In 1916-17 more than 36,000 children were tested in spelling and 7,200 in handwriting, representing all classes of schools. Additional returns from cities represent approximately 8,000 tested in arithmetic, 7,500 in reading and 5,800 in composition. A considerable number of schools made use of standard tests of one kind or another but did not report their results to the department. In a few more cases the results were not recorded in such form as to permit their being combined with those from other schools. Were all of these to be included in the figures above they would undoubtedly be considerably increased.

For the year 1917-18 tests were generally given on a cooperative basis in both city and rural schools. Under this arrangement tests agreed upon in conference with superintendents, supervisors, and principals at their annual meetings were given at specified times during the year. As a result of this plan some 10,000 children in rural schools representing 30 counties were tested in arithmetic. In cities the number tested in arithmetic was more than 18,000, in reading 10,000 and in algebra 1,700. Fifty-nine cities reported that they gave the tests in arithmetic, 33 in reading and 22 in algebra. A considerable number of city schools repeated the tests in arithmetic and algebra later in the year for the purpose of measuring the improvement.

RESULTS OF TESTS GIVEN

As stated previously the aim of educational measurements and more particularly of standard tests is the improvement of instruction. Before we can set out intelligently upon a program of improving instruction we must take invoice, so to speak, of present conditions. One service rendered by the standard tests thus far given has been to point out some of the strong and the weak points in our present-day teaching, thus indicating where remedial measures are most necessary.

Spelling.

The tests in spelling have shown all classes of our schools to be weak in this particular subject.

TABLE 29.—*The Average Per cent of Words Correct in Each Class of Schools*

	III	IV	V	VI	VII	VIII	Number children tested
35 cities and high schools.....	52	74	55	72	61	73	13,111
132 graded schools.....	64	80	59	74	67	78	7,465
39 counties.....	64	79	60	71	68	73	15,325
(1173 rural schools)							
Combined average.....	59	78	58	72	63	74	36,401
Ayres standard.....	73	88	73	84	73	84	.....

Note: It should be recalled that in most of the cities the test was given during the fall months of the first semester. All but 8 of the 35 cities are conducted on an annual promotion basis. From these facts it is estimated that the children in rural and state graded schools had completed on the average nearly one month more of the year's work than children in cities. Rural and state graded schools should be expected therefore to attain an average score approximately 2% higher in grades three and four and 1% higher in the remaining grades.

The scores attained in each class of schools may be seen from the table. The schools average more than a half year in arrear of what was to be expected of them. There was, however, a marked difference between the attainments of different schools, some doing very poorly, others not as bad. The third grade in one city averaged 28% of the words correctly spelled and in another 75%; the fifth grade in one averaged 30% and in another 75%, and the seventh grade in one city 41% and in another 80%. Evidently spelling is much better taught in some schools than others. The difference between children of the same grade was often found to be even more pronounced. In every grade there were some pupils who spelled all of the words correctly and others who failed in all. Success in spelling apparently plays little part in promotion in many schools. Among the principal causes of the poor results in spelling seem to be the teaching of too many unusual and unnecessary words at the expense of the common and more necessary words; the teaching of too great a number of new words per day; improper grading of children; inefficient teaching of spelling and in many cases an entire absence of actual teaching.

Arithmetic

The tests in arithmetic in city schools indicate a more satisfactory state of affairs than in spelling. This is particularly true of the lower grades. Grades three, four and five made a very satisfactory showing in the four fundamental operations. The remaining grades did not do as well. In some of the schools the attention given to the fundamental operations of arithmetic in these grades could profitably be reduced, since this high proficiency seems to be lost as the advanced grades are reached. As in the case of spelling there are wide differences in the achievements of children in the same grade. A better appreciation of the range in scores made by pupils in the same grades may be had from the table following which gives the distribution of all scores made on the Woody Addition and Subtraction Tests in cities. The table reads: 5 pupils in Grade III had none correct; 7 had one correct, 4 had 2 correct, etc.

Ability in the fundamentals of arithmetic has counted little in the promotion of some pupils. The better pupils in every grade exceed the class standing of some of the grades above. The upper tenth of the sixth grade surpassed the median of the eighth grade on each of the four tests in fundamental operations. Undoubtedly there is a considerable amount of marking time in the upper grades.

Much of the difficulty could be overcome by a more careful study of the peculiar needs or shortcomings of individual children. When results on written problems are considered the city schools make a fair showing. This phase of arithmetic, however, offers considerable opportunity for improvement. Among the teaching factors that would contribute to the results in reasoning tests in arithmetic are increased training in reading for meaning; practice in the formation of quick mental estimates of answers to problems; the formation of habits of checking answers; less emphasis upon elaborate written analysis and

greater emphasis upon clear thinking and a more careful study of the individual needs of each child.

Rural school children do not, on the whole, do as well in arithmetic as children in cities. In the fundamental operations the

TABLE 30.—*Distribution of Scores on the Woody Arithmetic Test Series A According to Number of Examples Correct*

Addition							Subtraction						
No. problems correct	III	IV	V	VI	VII	VIII	No. problems correct	III	IV	V	VI	VII	VIII
0	5						0	8	3				
1	7						1	28	10	1	1		
2	4						2	27	5	3			
3	7						3	16	6	2	2		
4	9	2					4	7	6	1	1		
5	17	1					5	12	9				
6	17						6	15	8	2	2		1
7	20	1	1				7	31	10	2	1		
8	24	2					8	42	14	2	1		
9	45	5	2				9	62	18		1		
10	67	11	2				10	99	29	8	3	1	1
11	81	9	3				11	134	35	6	4	1	
12	114	14	4	8		1	12	109	50	8	7	4	1
13	92	18	8	1		1	13	149	52	19	3	1	
14	98	42	10				14	110	73	20	9	1	2
15	98	64	21	1			15	107	92	33	12	4	1
16	118	88	37	4	3	2	16	90	111	36	6		2
17	96	115	35	12		1	17	82	111	87	26	3	4
18	91	134	66	10	3		18	43	123	103	36	8	1
19	93	126	79	33	5	5	19	44	156	127	57	10	6
20	86	143	100	33	8	1	20	26	148	184	58	21	13
21	54	170	141	44	15	8	21	22	118	154	63	22	11
22	42	124	132	64	25	9	22	3	56	130	73	32	23
23	20	101	126	70	18	16	23	2	37	119	97	52	23
24	4	67	87	96	37	19	24	1	23	60	108	52	29
25	5	39	68	88	34	30	25		6	40	107	60	28
26	1	21	73	76	44	32	26		5	23	105	92	54
27		9	44	86	61	43	27		1	19	90	96	60
28		9	49	84	77	51	28			15	96	91	31
29		11	29	101	68	45	29			7	90	83	92
30		1	31	93	80	63	30		2	3	60	83	92
31		4	26	99	106	93	31			1	33	92	36
32			22	76	123	126	32			1	38	75	94
33			11	81	106	111	33				25	60	83
34		1	9	67	102	110	34			1	13	43	82
35			5	51	109	130	35				5	22	54
			3	24	81	111							
			1	21	38	70							
				6	21	35							
					1								
Total	1,315	1,332	1,230	1,333	1,178	1,116	Total	1,269	1,317	1,227	1,256	1,020	935
Median ...	15.5	20.2	22.7	28.4	31.9	33.1	Median ...	13.3	18.1	20.8	25.6	28.4	30.3
Woody's Standard Median..	14.5	18.3	23.1	29.8	32.4	34.0	Woody's Standard Median..	11.2	15.7	20.4	25.0	28.5	31.7

work of the third and fourth grades is satisfactory but not many of the grades above these. The showing of the upper grades is so poor as to give us grave concern. This may be judged from the table below showing the median (or middle) scores attained in each grade in city and rural schools in comparison with the standard or

TABLE 31.—*The Median Scores on the Woody Arithmetic Test—Series A*

Addition						
Woody's Standard Median	14.5	18.3	23.1	29.8	32.4	34.0
Rural School Median 1917-18	14.5	17.7	20.1	22.9	25.2	28.8
City School Median 1916-17	15.5	20.2	22.7	28.4	31.9	33.1
Subtraction						
Woody's Standard Median	11.2	15.7	20.4	25.0	28.5	31.7
Rural School Median 1917-18	12.0	15.4	18.8	21.3	23.4	26.8
City School Median 1916-17	13.3	18.1	20.8	25.6	28.4	30.3
Multiplication						
Woody's Standard Median	4.7	11.1	18.3	26.1	30.6	32.9
Rural School Median 1917-18	6.9	12.4	16.9	19.6	25.6	28.9
City School Median 1916-17	6.8	15.2	19.2	27.3	30.9	33.2
Division						
Woody's Standard Median	5.8	9.9	16.5	23.8	27.4	30.1
Rural School Median 1917-18	7.8	10.2	13.9	19.5	21.8	24.9
City School Median 1916-17	7.6	13.5	19.6	25.1	28.4	30.0

expected score. The situation in each of the fundamental operations is very much similar. It will be seen from this table that in rural schools the eighth grade does not attain even sixth grade standard in addition. This is a sorry showing for pupils about to leave our elementary schools. With the advent of peace and the consequent increase in the supply of labor, measures should be seriously considered which have for their object the securing of longer periods of annual schooling for rural children. There is little doubt but that a part of this poor showing of the rural schools arises from the fact that many children are in school only a few months each year. A close observation of the actual results seems to indicate the need of a higher grade of teaching. Salaries must be paid which will command teachers of training and experience for country schools as well as for cities.

It is not to be assumed from this that all rural children did poorly. Many children in a large number of counties did better than expected standards. These point the way toward what might be accomplished by the present teaching staff if teachers were more concerned with a study of the particular needs of each child. There is need of improvement not only in the fundamental operations but in reasoning as well. The test in reasoning problems showed that Wisconsin rural school children were less accomplished than Wisconsin city children in this phase of arithmetic. Both need to achieve better results.

TABLE 32.—*The Median Scores on the Stone Reasoning Test*

	V	VI	VII	VIII
Median for Wisconsin cities (18,369 children)...	2.4	3.9	5.4	6.9
Median for Wisconsin Rural Schools (3,137 children).....	2.1	3.2	4.2	5.5
Butte Survey Median.....	2.7	4.4	6.3	8.2
Salt Lake Survey Median.....	4.3	6.9	9.1	11.0
San Francisco Survey Median.....	2.9	4.5	5.4	6.8

What Wisconsin children in cities and in rural schools did on the Stone Reasoning Test may be judged from table 32. The highest possible score on this test was 17.2. How well we compare with average schools elsewhere such as Butte, Salt Lake City and San Francisco may be judged after making certain allowances. In Butte and Salt Lake the test was given later in the year and for that reason approximately 0.9 should be allowed when comparing Wisconsin with Butte and 1.4 when comparing with Salt Lake.

Reading.

In reading, cooperative tests have thus far been limited to cities. The results in this subject are on the whole more satisfactory than in some of the others. In some respects, however, they are in striking contrast with the results attained in the fundamental operations of arithmetic. In 1916-17 eighteen cities tested the reading ability of their children using the Kansas Silent Reading Test. The following table shows the median scores made by each city, the combined result for all cities and the standard based upon results for 100,000 children from various sections of the country. The cities are arranged in order according to the amount of the work for the grade the children had completed when the test was given as indicated by the time of the year.

TABLE 33. -Median Scores For Kansas Silent Reading Test By Cities.

Cities	Date of test	Section tested	Test I			Test II			Test III				No tested
			III	IV	V	VI	VII	VIII	IX	X	XI	XII	
1	9/28/16	B	1.2	4.4	14.6	17.3	12.0	14.2	17.6	30.5	23.2	.....	132
2	10/3/16	B	1.2	4.4	12.1	12.0	14.2	16.3	.....	.....	.....	.....	552
3	10/10/16	B	1.7	5.1	15.3	11.1	17.8	20.2	.....	.....	.....	.....	431
4	2/12/17	A & B	3.3	5.3	12.0	13.8	15.3	18.9	.....	.....	.....	.....	494
5	11/2/16	B	5.7	6.9	13.3	11.9	16.7	20.4	.....	.....	.....	.....	718
6	11/9/16	B	3.4	7.0	12.9	12.8	15.2	28.1	.....	.....	.....	.....	476
7	11/27/16	B	2.3	10.7	13.5	14.6	19.2	16.2	.....	.....	.....	.....	422
8	12/7/16	B	14.0	9.3	13.1	14.4	15.9	17.4	.....	.....	.....	.....	316
9	12/12/16	B	.....	.....	.....	10.7	12.2	16.5	.....	.....	.....	.....	96
10	1/10/17	B	5.3	11.0	17.5	19.0	18.0	19.6	.....	.....	.....	.....	358
11	1/2/17	B	11.9	17.4	14.8	14.5	19.2	21.3	.....	.....	.....	.....	152
12	3/24/17	A & B	4.9	9.2	12.1	14.7	16.5	20.1	22.4	24.4	27.6	26.4	1,390
13	3/6/17	A	5.3	10.0	14.7	14.6	21.6	17.7	.....	.....	.....	.....	517
14	3/8/17	A	4.5	11.2	14.7	15.3	16.0	13.0	.....	.....	.....	.....	128
15	5/10/17	A	2.1	6.3	10.6	.....	15.9	16.3	.....	.....	.....	.....	303
16	1/1/17	A & B	6.0	11.8	16.9	20.0	20.1	30.8	.....	.....	.....	.....	760
17	4/10/17	A	6.3	11.3	15.0	10.8	17.0	19.8	.....	.....	.....	.....	228
18	4/12/17	A	0.8	8.5	12.0	13.5	16.5	20.3	.....	.....	.....	.....	75
Median	.....	.....	4.3	8.6	13.6	14.1	17.1	19.8	.....	.....	.....	.....	7,549
Standard	.....	.....	5.3	9.5	13.2	13.9	16.2	19.2	.....	.....	.....	.....	.....

The results indicate that as far as these schools are representative Wisconsin children are below the standard attained by 100,000 children of other states in grades three and four, but read better than the standard in the remaining elementary grades. It will be recalled that grades three and four were strong in arithmetic. The results in

reading give further justification for the recommendation that the time given to arithmetic could well be modified. More time might well be given to reading.

The individual schools differ greatly in their success in teaching reading. A comparison of the class scores shows that while some classes not only read *better* than children *two and three grades above*, but *better than they are expected to read*, other classes fall *below* the standard set for *the grade below*. Although not even one-half of the third and fourth grade read as well as they should read, yet the fact that one third grade exceeded the standard for the fifth grade shows what results can be attained. The fact that the best sixth grade class read, not only much better than the poorest eighth, but makes even better than standard score for the eighth grade, shows that many schools are not doing the work of which they are capable. When some eighth grade classes make a score less than half as high as the best they should be asked to explain their failure.

Returns from 33 cities on the Thorndike Reading test for 1917-18 give slightly different results in a few grades. Very few cities gave this test in grade three, making comparisons between 1916-17 and 1917-18 results difficult here. The fourth grade on this test was slightly above the standard in 1917-18. Grades five, six and seven were again slightly in advance of the standard set while grade eight was slightly

TABLE 34.—Average Class Scores—Thorndike Reading. (Thorndike's Method of Scoring)

	III	IV	V	VI		VII	VIII
				Pt. I	Pt. II		
33 Wisconsin cities	5.1	5.4	5.8	5.9	6.8	7.0	7.4
Thorndike's Standard.....	4.75*	5.25	5.75	.....	6.5	7.0	7.5

High School Grades

	IX	X	XI	XII
3 Wisconsin cities	7.2	7.5	7.7	7.7
Thorndike's Standard.....	7.75	8.0	8.25	8.5

*Estimated.

below. The improvement in grade four may be accounted for in part at least by the stimulus placed upon the teaching of reading by the previous year's test, since most of the cities in the 1916-17 test were also in that of 1917-18. The difference in grade eight is small and not very significant. The few results from high schools are not conclusive but if they are representative they point to the need of better training in reading in earlier years and a continuation of the training

in the high school. The most impressive feature of the results in both years is the fact that the performances of Wisconsin children, on the whole, differed little from those of average children elsewhere. First class results will never be attained so long as teachers continue to be satisfied with average or mediocre results. High grade results will never be attained in other subjects of the school program demanding reading ability until we demand far more than mediocrity in the teaching of reading. There is a need for marked improvement in the teaching of reading and an abundance of opportunity for it. No tests that were given in any subject revealed greater differences in what schools are able to accomplish and no tests indicated greater differences among children of the same grade. In every grade there were children who failed almost entirely and others who read better than average children in grades two or three years farther advanced.

The median number of questions answered on the Thorndike test; the number exceeded by the upper tenth of the grade; and the number below which the lower tenth fell, together with the highest and lowest scores in each grade are shown in the table following:

TABLE 35.—Median Number of Questions Correctly Answered on Thorndike Reading Test

	III	IV	V	VI		VII	VIII
				Pt. I	Pt. II		
Lowest score.....	0	0	1.0	8.0	0	1.0	0
Lower 10 percentile*.....	6.0	7.8	11.6	13.0	5.6	7.3	8.9
Median for Wisconsin cities (9,313 children tested).....	10.5	13.0	16.8	16.8	10.6	12.4	14.1
Upper 10 percentile.....	16.7	18.3	20.4	20.6	15.9	16.9	18.8
Highest score.....	21.	21.	21.	21.	23.	23.	24.
Total number of questions on the test.....	21	21	21	21	24	24	24

High School Grades

	IX	X	XI	XII
Lowest score.....	1.	7.	8.	8.
Lower 10 percentile*.....	9.6	10.5	11.0	12.3
Median for Wisconsin cities (354 chil- dren tested).....	13.7	15.2	16.0	15.9
Upper 10 percentile.....	18.2	19.5	20.5	20.5
Highest score.....	22.	23.	24.	22.
Total number of questions on the test..	24	24	24	24

*The term "lower 10 percentile" refers to the score which just 10% of the group failed to reach and which 90% exceeded. The "upper 10 percentile" refers to the score which 10% exceeded and which 90% failed to reach.

Although many teachers are aware that some children in their classes do better work and have greater ability than others, they would very seldom admit differences as great as this table shows. The best fourth grade readers answered all of the questions correctly and the poorest failed entirely. A large percentage of the fifth grade did not reach a score one-half as large as the fourth grade median. A large proportion in each grade do better than many children one, two and even three grades above. Such variation may well cause us to question both the effectiveness of our teaching, and the classification of our pupils. There is no doubt that teaching methods need improving and that many pupils are not graded according to their real ability. Moreover, as previously indicated, such great variations within a single grade indicate that teachers differ greatly in their judgment of the degree of reading ability required for promotion from grade to grade. Should the use of other reading tests show similarly wide differences in individual ability, then children of similar ability and interests should be grouped together for the work in reading.

When children are tested in the single matter of the speed of their reading we find almost invariably that the best read three times as fast as the poorest in the same grade. It will readily be seen that as long as the slower children are so far inferior to others of their own grade there is plenty of opportunity for improvement in our methods of teaching reading. The greatest possible improvement in reading cannot result until our teachers are trained to analyze more accurately than most of them now do, the fundamental elements involved in the teaching of reading, and also the need of diagnosing and meeting the individual pupil's needs. They need to know the causes of poor reading such as insufficient knowledge of pronunciation and meaning of words; they need to know how greatly children differ in the rate of both their oral and silent reading and in the ability to understand and remember the thought. The best reader in any grade who reads three to four times as rapidly as the poorest, (seldom less than three) usually remembers a large part of the material read. Many teachers need better preparation for the teaching of reading so that they will know such facts as that beginning with the fourth grade more time and emphasis must be given to silent reading than to oral, and that in all grades provision must be made that all children get more practice in both oral and silent reading than is possible with the present method of individual recitation. We learn to read by reading. All schools should be provided with a much larger amount of supplementary reading suited to the pupils' needs than is now possessed by most schools. They must know that the real aim of teaching reading is to get thought from the printed page and that the mechanics of reading are but a means to an end. Teachers must have such preparation that they know how to train pupils in rapid thought getting; that they realize the necessity for having pupils acquire the habit of reading more rapidly. So many do not know that our rate of reading may be greatly improved by practice.

To summarize what has just been said one of the fundamental elements in improving the reading of our children will be a knowledge by both teachers and pupils of how well children of a given grade should read orally and silently, and an effort to reach these definite standards. Class progress may be measured by using standard reading tests; the records should be kept before the class and each child should know how his score compares with the class. In this way both teacher and pupil may together analyze his needs and work for improvement.

A close observation of the teaching of reading would indicate that some of the urgent reforms in the teaching and administration of the course in reading are: (1) A better knowledge of what to expect of children and what children may expect of themselves. (2) More emphasis upon reading for the purpose of getting the thought. (3) More emphasis upon silent reading and less upon oral. (4) Better adaptation of the reading material to the interests and capacities of the children. (5) More emphasis upon the development of habits of rapid reading. (6) A reclassification of the children in many cases based upon their reading development. (7) More economical arrangement of recitation periods whereby it will be possible for the child to spend a greater portion of the time in reading and less in listening to others. (8) The provision by boards of education of an adequate supply of reading materials—at present altogether too limited. (9) A more careful and systematic study of the individual accomplishments and needs of every child.

TABLE 36.—*Median Scores in Composition by Cities*

Cities	Date tested	Section tested	III	IV	V	VI	VII	VIII	IX	X	XI	No. of children tested
1	9/28/16	B	.....	.....	.....	3.9	4.9	.....	.....	.....	.....	79
2	10/3/16	B	2.4	4.0	4.4	4.9	5.6	5.0	.....	.....	.....	530
3	10/9/16	B	.....	2.7	3.0	3.7	4.2	4.3	.....	.....	.....	331
4	10/23/16	B	.....	2.9	3.7	4.2	4.6	5.3	4.8	5.7	6.7	467
5	11/27/16	B	.....	3.2	4.3	4.7	5.0	.....	.....	.....	.....	344
6	12/5/16	B	1.9	2.3	2.4	4.2	4.4	4.4	.....	.....	.....	315
7	12/12/16	B	.....	1.6	2.6	2.7	3.7	4.7	.....	.....	.....	331
8	1/9/17	R	2.6	2.5	3.9	4.2	5.4	4.9	.....	.....	.....	353
9	1/17	A & B	2.6	2.8	3.3	3.8	4.0	4.2	.....	.....	.....	1,209
10	3/24/17	A & B	1.7	2.4	2.8	3.7	3.8	4.3	5.9	6.9	.....	1,208
11	3/8/17	A	.....	2.9	3.7	4.4	4.2	.....	.....	.....	.....	84
12	4/10/17	A	2.0	2.1	3.9	4.2	4.1	4.5	.....	.....	.....	186
13	4/12/17	A	1.7	3.0	3.5	4.2	3.8	4.3	4.9	5.0	5.4	169
14	6/4/17	A & B	1.7A	2.9	3.6B	.....	5.3B	5.4B	.....	.....	.....	128
15	6/6/17	A & B	.....	3.2	.....	4.8A	4.5A	5.6A	.....	.....	.....	114
Total.....												5,848
Combined Median.....			2.0	2.7	3.4	4.0	4.3	4.6	5.8	6.6	6.4	.....
Trabue's Standard.....			.....	3.5	4.0	4.5	5.0	5.5	6.0	6.5	6.9	.....

Composition

Composition was measured in fifteen schools in 1916-17 using the Hillegas and the Trabue scales. The children as a whole in these cities do not make a commendable showing.

The median scores for each city are shown in the table below. It is evident that the median for all cities is below the standard in each of the elementary grades. Just as in other test results very great differences exist between the scores of different cities. Not more than three cities in any one grade reach the standard for that grade, while in the third and eighth grades but one city attains the standard. The average sixth grade child did work but little better than that expected of the third grade pupil. The progress from median third grade performance to median eighth grade performance is less than three steps on the scales. This is hardly a large enough improvement for five additional years of effort.

The fact that some schools make so much better showing than others, as in the eighth grade where a score of 5.6 so exceeds another of 4.3, indicates that composition is much better taught in some cities than in others. Much of the teaching is entirely too formal. Less emphasis should be placed upon mere mechanics of writing and more attention given to creating in the children a desire to express themselves and to providing for both oral and written expression. Teachers must concern themselves first of all with what children are thinking and saying and only secondarily with the way in which they say it.

A greater conscious attempt must be made to suit the teaching to the needs of the children in the same grade. The differences within the same classes between individual children are as striking as in other subjects tested. In the sixth and seventh grades the scores range almost over the entire scale. This means that in a single grade children who write almost the very best compositions we may expect are found with those who write the very poorest. Children have apparently been promoted to the sixth, seventh or eighth grade with third grade ability in composition. These children would make better progress if placed in classes or groups where the work is more suited to their ability. Removing these poorer ones from a group of better students would permit the teacher to adjust the work to meet the needs of the abler pupils.

Handwriting

The returns on writing as received from the county superintendents and principals of county training schools represented 173 rural schools. Data were obtained from 12 cities. But 141 of the rural schools and 5 of the cities are included in the records for speed. The Thorndike Handwriting scale was used in estimating writing. In this, as in other subjects, the scores in every grade range from almost the very poorest writing (quality 4 on the Thorndike scale) to almost the very best (quality 18). In grade two the quality of handwriting ranges from 4 to 13 and in grade eight, from 6 to 18. Since quality 12 is Freeman's standard for the eighth grade some second grade pupils already write well enough and should be free to devote a large amount of the time usually given to writing to other work; while large numbers of children in all grades including even the eighth do not write as well as second grade pupils should write. Such startling differences

in individual skill and such poor results in the upper grades indicate the need of better teaching of writing in Wisconsin schools.

TABLE 37.—*Distribution of Scores for Quality of Handwriting—Thorndike Scale*

Quality	II	III	IV	V	VI	VII	VIII
4.....	18	7					
5.....	46	27	7	1	2	1	
6.....	76	64	39	12	10	6	5
7.....	194	233	168	99	43	19	15
8.....	197	350	334	238	174	100	90
9.....	121	300	371	362	364	260	224
10.....	29	60	126	134	137	138	121
11.....	26	67	129	125	186	226	223
12.....	2	24	45	62	83	114	140
13.....	1	12	15	30	60	69	82
14.....		3	1	8	14	23	29
15.....			2	5	7	16	17
16.....				1	8	7	24
17.....					1	2	6
18.....						1	3
Total.....	710	1,147	1,237	1,077	1,099	982	979
Median.....	7.6	8.2	8.7	9.0	9.4	10.3	10.7
¹ Freeman's Standard.....	8.2	8.8	9.6	10.1	11.0	11.7	12.1

¹ Converted from Ayres to Thorndike units by Kelly's method of equating the two scales. "Each Thorndike unit equals 7.9 as great a distance as an Ayres unit."

TABLE 38.—*The Median Scores in Quality of Handwriting for Each Class of Schools—Thorndike Scale*

	II	III	IV	V	VI	VII	VIII	Number children tested
11 Cities.....	7.5	8.0	8.6	9.0	9.3	10.5	10.7	3,866
9 Graded schools.....	7.5	7.8	8.2	9.0	9.5	9.3	10.0	720
30 Counties (173 Rural Schools).....	7.7	8.5	8.6	9.1	9.5	10.3	10.7	2,645
Wisconsin Median.....	7.6	8.2	8.7	9.0	9.4	10.3	10.7	7,231
*Iowa standard.....	8.3	8.8	9.4	10.0	10.4	11.0	11.5	28,000
*Freeman's standard.....	8.2	8.8	9.6	10.1	11.0	11.7	12.1	56 cities

*Converted from Ayres to Thorndike units by Kelly's method of equating the two scales. "Each Thorndike unit equals 7.9 as great a distance as an Ayres' unit."

In no grade is the median result equal to Freeman's standard or to the results achieved by Iowa children—that is, the writing of half the pupils in every grade is much below the standard. The best median results in some cities in each grade are equal or superior to Freeman's standard shows that Wisconsin cities can reach these standards. The present attainments represent insufficient return upon the time invested. Conscious use of standards by the teacher; definite objective

measurement from time to time with attention to the writing of individual children to discover the needs of each; and increased knowledge of the technique of teaching writing are necessary if Wisconsin pupils are to acquire the skill which they should have in writing.

The following table shows the speed with which Wisconsin children write.

TABLE 39.—*The Median Scores in Speed of Handwriting for Each Class of Schools*

	II	III	IV	V	VI	VII	VIII	Number children tested
5 cities.....	29.9	43.	54.6	62.	61.9	75.8	78.9	1,985
9 graded schools....	38.7	48.1	61.5	71.	82.5	84.3	96.3	720
28 counties (141) rural schools.....	36.9	56.1	59.3	69.4	73.	78.8	88.	2,079
Wisconsin Median....	34.2	49.6	57.2	66.4	68.2	77.9	84.7	4,784
Iowa Standard.....	39.2	49.6	61.9	65.5	72.6	75.	76.5	28,000
Freeman's Standard.	36.	48.	56.	65.	72.	80.	90.	56 cities

In grades three, four and five they write as rapidly or more so than they are expected to write but in grades two, six, seven and eight they are below the standard in speed. Considering the medians for the state as a whole, Wisconsin children probably write as rapidly as average children who have been taught to write with no particular attention being given to their rate of writing. They should either be expected to produce a higher quality at their present rate of writing or to produce their present quality at a higher rate of speed. If the habit of writing rapidly is to be developed, teachers must begin early in the child's school life to train in that direction.

Both legibility and speed must be stressed in the teaching of writing if both are to be acquired.

Algebra

The returns received from high schools in a number of cities on the tests in algebra in 1917-18 indicate that on the whole good results are being attained in this subject. The table below gives the median scores on the Hotz Algebra Test for both the December and June tests.

The showing seems to reflect in a measure the stress that has for a number of years been placed upon good teaching in algebra by the department supervisors of high schools. The stimulus received from the preliminary tests given in many of these same schools in 1916-17 has probably given additional impetus to the teaching. But again in algebra as in other subjects a wide range in the achievements of different schools and of different pupils of the same classes crops out. Evidently some teachers are much more successful than others and evidently too little attention is given to the needs of individual children. More careful analysis needs to be made of the kinds of errors which pupils make in order to discover particular class and individual

TABLE 40.—*The Median Number of Examples Correct on the Hotz Algebra test, Series B*

	Addition and Subtraction	Multiplica- tion and Division	Equation and Formula	Problem
December Test.....	11.2	11.4		
3 Months Standard.....	9.7	9.6		
June Test.....	18.5	17.4	17.2	8.2
9 months Standard.....	14.4	16.3	16.0	7.5

weaknesses. Many pupils are doing good work in algebra and many are evidently failing. It is probable that in many schools more caution should be exercised before a pupil is steered into a course in algebra. Many failures could be prevented by a more careful study of the probable need for, and ability to carry algebra successfully before thrusting pupils into the course. A number of schools have already made algebra elective and others should do so. Another evident need is that of sectioning classes wherever possible according to ability to profit by the type of instruction given. Bright students should not be held back on account of the slow, and poor students should not be given a type of work that is far beyond them.

CONCLUSION

Among the significant and outstanding features of the application of standard tests thus far in Wisconsin is the wholesome interest taken by and the hearty cooperation received from the schools of the state. Superintendents are seeing the need of more accurate methods of evaluating the product of the schools. They have attempted to apply tests to the best of their ability and to profit from the findings. All of the results so far attained point to the need of training teachers in the use and application of scientific methods of studying the achievement of results. Much has been done to stimulate teachers in the schools where they have been applied, but much more needs to be done. More attention must be given to scientific measures of classroom results by institutions engaged in the training of teachers and principals and future superintendents. Above all the tests given have pointed out that there is ample room and urgent need of improving instruction in most branches. They have served to indicate some of the points of attack. They have pointed out more than ever the need of studying the individual child and his possibilities for growth.

CHAPTER X

THE EXCEPTIONAL CHILD IN THE PUBLIC SCHOOLS*

1. WORK FOR FEEBLE-MINDED AND SUBNORMAL CHILDREN

For several years certain schoolmen in Wisconsin have been keenly alive to the need of providing some sort of special care and education for those children who have manifested, by numerous and persistent failures, their inability to move along with their classmates in the regular school work.

Perhaps no other one thing contributes so largely to slow class progress, spiritless class recitations, and general inharmony and inefficiency as does the presence of the "dullard". Small as is his percentage in the school, he is often a considerable factor in determining the length of assignments as well as the rate at which the class work proceeds. He is a constant source of distraction to the other pupils and of anxiety or more or less well concealed irritation to the teacher. It is perhaps safe to assert that the feeble-minded and subnormal children in any school consume about 10 per cent of the teachers' time, though they make up, usually, not more than 1 per cent of the school population.

Historically, school provision for "backward" children usually runs the same course. It begins either with a room and a teacher set apart to deal with the school failures, or with a "special help teacher", who coaches the backward ones, singly or in small groups, in those school subjects which are proving hardest for the child. In these special rooms, usually called "ungraded", one finds a heterogeneous collection of children; some slow, some dull, some backward, some subnormal some psychopathic, some genuinely feeble-minded, some above average clever. The program usually differs little from that of the regular grades, as far as content is concerned. The children go at a different pace, and have more individual help, but the subjects of study are the regular school subjects, and the object of the teacher usually is to

* Provision for the superior child is discussed in Chapter IX, "Scientific Management" to Education, p. 101.

get the child "up" in his work, so he can reenter some regular grade. For some of the pupils in such rooms, this is a proper and admirable program and aim, and such effort to meet the needs of the retarded, slow or dull child cannot be too strongly commended.

UNGRADED ROOMS IN WISCONSIN 1916-17

Twenty-eight Wisconsin cities reported ungraded rooms in their annual reports for the year 1916-17.

TABLE 41.—*Ungraded Rooms, Wisconsin 1916-17.*

Cities	Number of teachers	Number of pupils
Appleton.....	1	*
Ashland.....	1	12
Baraboo.....	1	?
Chippewa Falls.....	1	35
Edgerton.....	1	6
Evansville.....	1	25
Fond du Lac.....	1	16
Green Bay.....	1	17
Kenosha.....	1	20
LaCrosse.....	2	60
Madison.....	2	33
Manitowoc.....	2	24
Marinette.....	1	24
Merrill.....	1	36†
Milwaukee.....	42	884
Oconomowoc.....	1	35
Portage.....	1	21
Racine.....	5	140
Reedsburg.....	1	30
Shawano.....	1	16 (varies)
Sheboygan.....	8	120
Stanley.....	1, (8 pract.t's)	30
Stevens Point.....	2	36
Superior.....	2	18
Tomah.....	2	60
Waukesha.....	1	?
Wausau.....	2	185†
West Allis.....	1	20

Ungraded Rooms Planned for the Year 1917-18.

Ladysmith
Marshfield
Stoughton

*May be discontinued.

†Average time spent in ungraded room, five weeks.

Six of these cities, Appleton, Kenosha, Madison, Milwaukee, Racine and Superior, had rooms devoted solely to children who were genuinely feeble-minded, as determined by psychological tests. Their programs, with one exception, were distinctly different from that of the regular grades. Work designed to give these children sense training, motor deftness, and self control was substituted pretty largely for the regular program of academic studies. Handwork and various sorts of industrial work were emphasized. Teachers who had had special training in working with defectives were secured, in several cases, coming

from the University of Pittsburg, the Minnesota School for Feeble-minded, and the Vineland Training School. Fifteen such rooms existed in these six cities by June, 1917.

Most of the ungraded rooms, however, are for overage children or those having difficulty in keeping up with their classes in certain or all of their school studies. Some of these rooms number among those enrolled, children who are exceptionally bright. These are given help which sometimes enables them to make up certain work in order to obtain a special promotion. This is the case of Manitowoc, Reedsburg and Wausau.

While some superintendents seem enthusiastic about these classes, their claim to entire success may be impeached by the fact that the reports for the year ending June, 1918, show only 23 cities maintaining ungraded classes, whereas 28 cities were operating them and 3 others had such planned in June, 1917. Only three new cities started the "ungraded" class in 1917-18, while seven cities dropped them. The three cities opening ungraded classes in 1917-18 are Beloit, Viroqua and Waupun. Those dropping them are Fond du Lac, Green Bay, Janesville, La Crosse, Sheboygan, Stoughton, Waukesha. Stoughton employs two special help teachers. Fond du Lac has a system of promotion by subject which helps to relieve the need of special help work, with normal children.

The need of differentiating between the merely retarded and the feeble-minded children and the necessity of handling them separately and in different ways is becoming amply apparent to all educators.

LEGISLATIVE ACT OF 1917

After listening to the urgent reports and conclusive data presented by the State Superintendent, and other interested schoolmen; by the Committee on Feeble-mindedness of the Central Council of Social Agencies; by the Federation of Women's Clubs and like interested organizations and individuals, the Legislature passed an act providing state aid to school districts establishing classes for "exceptional" children, and authorizing the State Superintendent to appoint a supervisor to have general charge of the work. A clinical psychologist appointed to this position began work October 1, 1917.

CLINICAL PSYCHOLOGICAL WORK IN THE SCHOOLS

General Plan

The best interests of the work seemed to demand that it be started, on a sound basis, in as many communities as possible. Experience had taught that such work once properly begun, is never dropped. To this end, cities were visited in order as requests for the work came in from superintendents of their schools. This assured that cooperation from the schools which is absolutely necessary for the success of the work, and promised, also, a community sufficiently informed and interested to give the financial support necessary to carrying out the

recommendations growing out of the investigation. A gratifying proof of the interest which exists in this problem among the school men of the state lies in the fact that requests made up a program too big to be completed during the school year.

The preliminary work in each school system consisted in obtaining lists of those children who fell into one or more of these classes: (1) repeaters of two or more grades, without obvious reason other than defective mentality; (2) children showing age-grade retardation of two or more years (calling 7 years normal for 1st grade; 8 years for 2nd grade, etc.); (3) "problem cases", whose behavior or attainments caused superintendent, principal, or teacher to question the child's mental normality. Where the lists submitted in a school were so large that the investigator had reason to know many normal children were included, certain standard group tests, such as the Woody arithmetic and the Trabue completion tests were administered, and some of the candidates for the individual examination eliminated on the basis of the results.

TABLE 42—Results of Investigation Made During 1917-18

Cities	Children examined	RETARDATION DUE TO:						Cases requiring special class instruction	Classes recommended	Classes now operating, Nov. 1918	
		School conditions	Physical conditions	Social conditions	Mental Conditions						
					Dull	Psychopathic	Borderline				Feeble-Minded
1	36	2	4	1	5	1	11	15	26	2	
2	26		2	1	7	1	7	9	17	1+	
3	97	8	6	3	22	2	15	43	58	3	3
4	92	6	7	2	19	1	14	40	54	4+	
5	29	4	2	1	6	1	5	10	15	1	1
6	23	2	2	1	6		3	15	15		8
7	72	2	4	2	12	2	12	33	47	3	2
8	47	2	2	1	12	3	10	39	49	3	2
9	49	3	7	3	4	1	11	17	28	2	1
10	6				2	2	2	2	4		
11	7	2		1	2	2	2	2	2		
12	38	4	4	1	9	3	7	13	20	1	1
13	70	3	3	1	12	3	10	41	51	3	
14	27	2	4	1	5	1	1	15	16	1+	
Nonschool cases	14		1	1	1		2	9			
Totals	633	40	48	20	124	18	112	301	402	24	18

Additional cities having classes for Mental Defectives:

15	1
16	1
17	1
	24
	21

* Authorized by Board, awaiting teacher.

† Two authorized by Board, awaiting teachers.

The cooperation of the teacher, the school physician, the nurse, the local charities organization, etc., were then enlisted toward securing as complete a picture of the case as possible. A physical record, a home and neighborhood record, and a complete school history of the child were obtained, where this was possible. Each child tested then spent from one hour to one and a half hours with the examiner. If a physician's record was not available, the child's vision, hearing, nose and throat, and nutrition were investigated. The psychological examination included the Terman revision of the Binet scale, certain of the Healy, Knox, Woodworth-Wells and other standardized tests. The Pintner-Patterson performance tests were added with deaf subjects.

On the basis of the results of the entire investigation, the children were classified as feeble-minded, psychopathic, retarded, dull, normal, or superior. The causes of the school retardation were classified in four groups, as being due to: (1) physical conditions (often remediable); (2) school conditions, including poor teaching, irregular attendance, late entrance; (3) home conditions; (4) mental conditions, these ranging from mere slowness or dullness, through constitutional inferiority, psychopathic conditions and borderline defect to feeble-mindedness.

RESULTS FOR SCHOOL YEAR 1917-18

The preceding table shows the classification of 633 children examined. The cities in which children were examined are: Baraboo, Beloit, Chippewa Falls, Clinton, Edgerton, Fond du Lac, Kenosha, Madison, Milwaukee, Monroe, Oshkosh, Racine, Richland Center, and Waukesha. The cities are not numbered in alphabetical order in the table. The group called "nonschool cases" includes cases from the courts and elsewhere.

SPECIAL CLASSES FOR MENTAL DEFECTIVES

During the school year 1916-17, fifteen special classes for mental defectives, were operating in Wisconsin, in six cities. Two of the ten in Milwaukee were closed at the end of that year. The investigations of the State Department 1917-18, tabulated in Table 42, culminated in recommendations for twenty-one additional classes of this sort, in eleven cities, eight of which had had previously no classes of this kind. The recommendations were passed on favorably by every board to which they were submitted, i. e., in nine cities. In two cases, want of room, owing to serious overcrowding, made the opening of special classes practically impossible. Four of these classes now ready to start are held up for want of a teacher. Eight of the new classes recommended last year are now in operation. Wisconsin now has twenty-one classes for mental defectives, located in ten cities. The cities having these classes are Appleton, Chippewa Falls, Fond du Lac, Kenosha, Milwaukee, Madison, Monroe, Racine, Superior and West

Allis. Four additional classes, in three cities, will probably be in operation next term. These cities are Baraboo, Oshkosh and Richland Center.

TEACHERS, EQUIPMENT AND PROGRAM

Results of Psychological Examination

Several things stand out in the tabulated results. Perhaps the most striking is the fact that less than half the children recommended for examination as subnormal suspects proved to be definitely feeble-minded. Even if we combine the feeble-minded and the border line cases (many of which will undoubtedly prove to be actually mentally defective) only 65% of the children referred for examination were found to be mentally subnormal. Another 2.8% proved to be psychopathic cases,—children afflicted with profound nervous instability,—hysterical, neurotic, or suffering with incipient insanity. 36% of the children examined owed their backwardness and school failure not to defective or diseased minds, but to physical, social or school conditions, largely remediable, or to minds which are slower and duller than the average. That such children are frequently misunderstood and not given the sympathetic help they need is undeniable. On the other hand, it is not unusual to find a definitely feeble-minded child, much overage, in a class where he is doing fair work because of many repetitions, and much patient effort, whose teacher is unaware of his limitations. This makes for much wasted effort and lost motion. It is as futile to attempt to give a regular academic education to a feeble-minded child as it is wicked to deny one to the slow, or the physically handicapped.

Table 43 gives figures from typical Wisconsin cities, showing the net school enrollment, the number of feeble-minded and of border line children identified, the percentage of feeble-minded and the percentage recommended to the special class in each city.

TABLE 43.—*Ratio of Subnormals to School Enrollment in 10 Cities*

City	School enrollment	Borderline subnormals	Feeble-minded	Per cent feeble-minded	Per cent recommended to special class
1.....	1,096	1	15	1.3	1.5
2.....	4,262	10	41	0.9	1.2
3.....	1,352	7	13	0.9	1.5
4.....	3,883	11	17	0.4	0.7
5.....	5,479	16	39	0.7	1.0
6.....	5,562	8	39	0.7	0.8
7.....	1,064	5	10	0.9	1.4
8.....	4,975	14	40	0.8	1.0
9.....	7,793	15	43	0.6	0.7
10.....	1,931	11	15	0.7	1.3
Total.....	37,397	98	272	Av. 0.7	Av. 1.0

The Teacher

The teachers of these special classes must have special preparation for their work. They should be normal school graduates, or college women of at least two years' standing. They should understand primary methods and be thoroughly trained in handwork, including weaving, woodwork, sewing, chair caning, etc. Summer school courses giving special training for this work can be obtained in a number of places and teachers in the special classes command a higher salary than the regular grade teachers.

The Equipment

The equipment of the special room includes much material for hand and industrial work. It includes looms, both hand and foot power, for many sorts of weaving; work-benches, where various things in wood are made, often including big pieces of furniture; tools and materials for brush-making, chair-caning, sewing and household arts and the like. A bench and a set of simple cobbling tools have been installed in some places and cobbling is proving entirely practicable. Pianos, or victrolas are especially recommended in these rooms, as an aid and encouragement to games, rhythms, and the physical training so much needed by most of these children. The activities which may be taught successfully differ largely with communities and conditions. For this reason, as well as because the personnel of each class is inevitably so widely different, no state course of study for such classes seems advisable. The initiative, and the energy of the teacher in charge, equally with that of her advisors and supervisors, must largely determine the type, variety, and extent of work done in each room, especially where all the mentally defective children of a given school district must be handled in one room.

The Program

The programs of these rooms is essentially different from that of the regular grade. It is now well recognized that children of this type can accomplish only a fraction of the regular academic work. Such rudiments of it as they can master, are taught them. Many of these children will, with patient effort, master school work up to about fourth grade with difficulty. Few of them will really do fifth grade work though many of them are found in the fifth grade, and even higher. They do best in writing (a mechanical, motor achievement), next best in spelling (a matter of rote memory), next in reading, where a mechanical proficiency is sometimes achieved, and poorest of all in arithmetic. A large part of their time is given to the learning of muscular adjustments, self-control, persistence and self-confidence, through hand tasks which have an outcome in useful things made by each child.

The Service of the Special Room

It is folly for us to ignore the fact that these feeble-minded children are not only not profiting by the work which the regular grade teacher

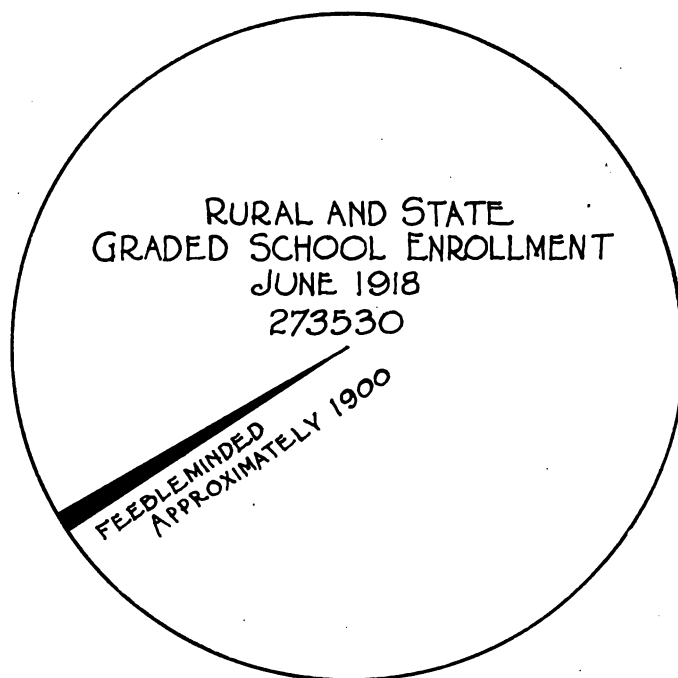
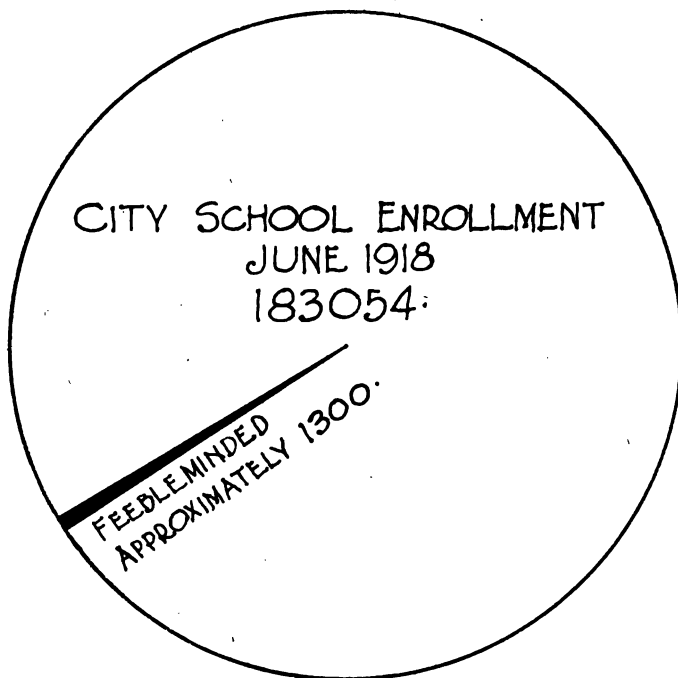


FIGURE 11.—Proportion of Feeble-minded to School Population

must attempt to teach them, but that they seriously retard and impede the work of the normal and superior children. Often, the mentally defective are not recognized as such, and are thought to be merely lazy or vicious. They are then subjected to the prodding, punishment, sarcasm and humiliation which falls to the lot of the laggard. Under this treatment, coupled with want of social adjustment and success all along the line, together with the handicap of strong suggestibility and a weak will, these children often become disciplinary problems and frequently delinquents. J. Macfie Campbell, M. D., of Johns Hopkins Hospital staff, and lecturer in Psychiatry, John Hopkins University, voices the opinion of modern criminology and social science when he says: "Mental defect forms the largest single cause of delinquency". At root, this is a school problem. The discovery and disposition of these children belongs in the schools.

It is now well recognized that the special class does three important things: (1) It minimizes the defective's possibility of becoming a delinquent. Relieved of the burden of tasks utterly beyond him, and happily busy at things he can really learn to do, he is frequently transformed. (2) It starts the defective on the road to becoming self-supporting, under proper supervision. Taught motor control, personal cleanliness, practical rudiments, and some form of industrial work, he has a chance to get placed where what skill he can acquire (and it is often considerable) is utilized. Moreover, his employer may and should know the type of person he is employing, so that proper supervision may be given, and accident and frequent job losing avoided. The diagnosis, made in the school, should be a matter of record, accessible to employers, and some sort of "follow up" or "after care" work must be a part of the school program. (3) The special class adds enormously to the harmony and efficiency of the entire school, giving to the average and superior pupils the entire time of the teacher who has been trained to deal with them and with them only.

2 DAY SCHOOLS FOR THE DEAF

The system of day schools for the Deaf in Wisconsin which began in 1879 with a private school in the city of Milwaukee came under the jurisdiction of the state as a result of legislation enacted in 1885. In the minds of the persons who promoted the establishment of this system there were two fundamental reasons to justify the establishment of day schools. First, the day school afforded an opportunity for the deaf child to receive special training necessary for his educational progress without being deprived of the advantages and influences of home life. Second, the establishment of the day school, in which the oral method is used exclusively, afforded an opportunity for teaching speech and lip reading in a "speech atmosphere." With the passing of time, since the establishment of day schools in Wisconsin, the importance of this first proposition has in no way decreased. The need of the deaf child for the training and influence of the home is still as great as it has been in the past. The increased attention given to the oral method in the state school for the deaf has, in a measure, lessened the importance of the second proposition. However, in spite of this change the pupils of the oral department of the state school mingle with those of the manual department outside the classroom, so they are not kept in a "speech atmosphere."

FLEXIBILITY OF ORGANIZATION

Another feature of the system of day schools which is worthy of notice, but which probably did not assume as much importance in the minds of the founders of the system as the points already mentioned, is the flexibility of organization. The plan on which these schools are established makes it possible to start a school wherever a sufficient number of pupils can be brought together and when for any reason the need for the school no longer exists it may be discontinued without hardship or financial loss to the parties concerned. It has been the policy of the state to take advantage of the possibility offered by this plan of organization. The chief thought has been to make these schools serve the needs of deaf children and when such needs no longer exist to discontinue the school.

GROWTH OF THESE SCHOOLS

The extent to which these schools have grown may be seen by referring to Table 37, page 179. One very interesting feature in connection with the growth and enrollment of the day schools is that

during the same period the enrollment in the State School for the Deaf has shown very little, if any, decrease. This fact points to a valuable service which has been rendered by the day schools. The teachers in these schools, located in cities distributed in practically all parts of the state, have been active in searching out deaf children and disseminating information concerning schools for the deaf. As a result, many parents of deaf children have learned of the opportunities afforded for the education of deaf children and many deaf children have been placed in school who would otherwise have remained out of school until late in life, or possibly never have entered school at all.

INSTRUCTION

The instruction of the deaf exclusive of the industrial work falls under two main heads: Speech and lip reading. It is the work of the teacher to develop in the deaf child the ability to speak so as to impart ideas to other persons and to also train him to read the lip so he may receive ideas from other persons. In this connection, it should be mentioned that in schools for the deaf will be found children of all degrees from total deafness to those having but slight defect in hearing, also all the different gradations of mental ability; and the results which may be obtained with any given individual will be determined quite largely by these factors. Teaching the deaf child to speak does not mean giving him a natural voice or the ability to speak as distinctly as the hearing person with normal speech; nor does teaching the deaf child to read the lips mean that skill in this can entirely remove the handicap imposed by deafness. But teaching the deaf child to speak and to read the lips does mean in most cases giving him such speech that he may make himself understood for ordinary purposes and giving him ability to read the lips so that he may be made to understand a great deal that is said to him.

CORRECTION OF DEFECTIVE SPEECH

While more or less attention has been given to correction of speech defects since early in the history of day schools for the deaf, not until 1913 were children with defective speech allowed to enter these schools on the same basis as deaf children. During the year ending June 30, 1918, the number of defective speech children enrolled for full time was 150, while 319 children with defective speech were given part-time instruction.

For our purpose, speech defects for which children are enrolled in day schools for the deaf fall in two large groups: stammering (including stuttering) and other defects. Under "other defects" lisping is the most common. Reports for 1918 on 134 cases of stammering show that 14 were considered cured; 112 improved, only 8 not improved. Out of 288 children having other speech defects, 64 were reported cured, 213 improved, 11 not improved.

In this work the day schools are pioneers and are demonstrating what may be done in the way of correction of speech defects. The results indicate clearly that steps should be taken to provide special instruction for defective speech children in school systems where day schools for the deaf have not been established and may not be needed because of the absence of deaf children.

PRESENT NEEDS

At the present time, the greatest needs of the day schools for the deaf are more trained teachers and smaller classes. These needs can be met only by more funds being made available for payment of the salaries of teachers of the deaf. The teacher preparing to instruct deaf children is required to spend a longer period in preparation than a teacher who is engaged in regular teaching. The work of instructing the deaf, while it is intensely interesting, requires intensive effort and almost unlimited patience. This, together with a longer period of training, makes it imperative that teachers of the deaf shall receive a higher rate of compensation than teachers of hearing children, if we are to maintain our supply of trained teachers. More funds are needed, in order that the appropriation may be sufficient to pay the salary of the teacher without the necessity of her having to take charge of a class which is too large to be handled with the best results.

DAY SCHOOLS FOR THE BLIND

The plan for the organization of day schools for the blind is identical with that of day schools for the deaf, except that larger appropriation is granted for the blind. The small percentage of blind persons of school age has made it unnecessary to establish and maintain classes for the blind in any cities except Milwaukee and Racine, the number of persons enrolled in these classes is shown in Table 38, page 179. The same table also shows the different lines of work given to these children, which are especially adapted to the needs of the blind.

The day schools for the blind have given a great deal of attention to prevention of blindness and restoration of sight to those partially blind. Their efforts along the line of restoration of sight have been rewarded by a number of pupils formerly in the classes for the blind recovering their sight sufficiently to return to the regular classes. By cooperating with the local and state boards of health in the enforcement of state laws and city ordinances the day schools for the blind have done much toward preventing blindness among children.

CHAPTER XI

THE SERVICE OF THE SCHOOL LIBRARY

PLACE OF THE SCHOOL LIBRARY IN EDUCATION

Reference Work

No small part of an education consists in knowing where to find information when it is needed. A school library with the right books, properly organized, effectively used, and with lessons given on the use of books and libraries:

1. Trains children to help themselves to find information for their class work.
 2. Saves the teacher's time and energy.
 3. Trains the future citizen and voter.
 4. Trains the future business man, farmer, industrialist, and home-keeper to find information needed.
 5. Enables the pupil to continue his education after he leaves school.
- The library is the greatest continuation school.

General Reading

Books are windows to the soul.

Well chosen and varied reading of library books:

1. Increases the pupil's knowledge related to school subjects.
2. Increases interest in lessons to be learned; and interest is the greatest single factor in success.
3. Develops ideals to which the teacher can appeal in promoting effective school work by the children.
4. Makes of the school a reading family.
5. Enables the child to enter upon his literary heritage.
6. Supplies a source of elevating pleasure throughout life.
7. Helps solve the problem of the wise use of leisure time which comes with the shorter working day.
8. Last, but not least, the right kind of general reading promotes true patriotism.

SCHOOL LIBRARY DEVELOPMENT IN WISCONSIN

The Beginnings

1848—State constitution provides that part of school fund income shall be used for school libraries.

1849—Law providing that when income of school fund reaches \$30,000 ten per cent is to be used for school libraries.

1851—\$3,524 thus spent for school libraries.

1854—A backward step. Above law made optional instead of mandatory.

1858—State Superintendent Draper's report devotes 80 pages to school libraries urging their development and recommending legislation.

1859—Enactment of effective school library law. Horace Mann said "This law is worth many times more than my life."

1861—Civil War exigencies cause legislature to repeal this splendid law.

PERIOD OF DECADENCE (1861-1887)

Repeal of law of 1859 marks beginning of "dark ages" for Wisconsin school libraries.

1850—Over 40,000 volumes in school libraries.

1874—Only 16,000 volumes in school libraries.

1878—Only 328 districts out of 5,361 had school libraries.

THE TIDE TURNS

1887—Township school library law enacted, authorizing towns to set aside part of the school fund income annually for school library purposes.

TABLE 44.—*Rapid Growth of School Libraries Since the Enactment of the Township Library Law*

Year	Number of Volumes	Cost
1887.....	45,248.....	\$42,117
1897.....	250,000 (in part estimated).....	150,000
1907.....	1,119,479.....	613,447
1917.....	1,862,531.....	1,041,822
1918.....	1,931,376.....	1,110,017

Present Prominent School Library Needs

1. Definite lessons on the use of books and libraries in every school.
2. A teacher librarian or a full-time librarian in every high school.
3. Every pupil above the second grade a member of the Wisconsin Young People's Reading Circle.

SCHOOL LIBRARY PUBLICATIONS

ISSUED BY THE STATE SUPERINTENDENT

1. *List of Books for Township Libraries.* A new and revised edition every two years. The latest list (1918) includes over 1600 titles. A description is given of each book, its cataloging is indicated, for which
9—S. S.

grades it is suitable is pointed out, and usually there is an annotation expressing the merits of the book.

2. *Minimum Rural School Library List*. Issued in mimeographed form. Includes some 300 titles.

3. *List of Books for High School Libraries*. A revised edition every two or three years. The latest (1917) includes over 1400 titles, with descriptions, indicated cataloging, and many annotations. Besides many government and state publications are listed.

4. *Minimum List of Books for High School Libraries*. A list of some 500 books in mimeographed form, containing a list of books that should be in all high school libraries.

5. *Instructions for Cataloging High School Libraries*. Includes also other instructions on organizing high school libraries.

6. *Reading Circle Pamphlet*. Issued by State Reading Circle Board. Prepared and distributed in the state superintendent's office. Includes lists of the best books for grades and high school.

7. *Lessons on the Use of the School Library*. This is a course of lessons for the grades and high schools in the use of books and libraries. It was first issued in 1915. Lessons on how to find information from printed sources are given which are as definite as lessons in arithmetic, geography, or other traditional school subjects. Other lessons deal with the best books for general reading and the reading of magazines and newspapers. Wisconsin is the first state to provide such a course of study in its schools.

8. *Organization and Management of Elementary School Libraries in Wisconsin*. This gives full instructions on how to organize and manage school libraries in rural schools, state graded schools, grades below high schools, and city grades. Issued in 1918.

9. *Rebinding Pamphlet*. Instructions relating to the rebinding of school library books. Issued annually and distributed between March 1 and May 1.

10. *Wisconsin School Library Accession Book*. For use in rural and graded school libraries.

11. *Memorial Day Annual*. Issued annually by the state superintendent, beginning with 1896. Has been an important influence in developing patriotism and true Americanism in the schools of the state.

12. *Library Lessons for High Schools*. A pamphlet of suggestions, outlines, and references for a course of lessons on books and libraries to be given to the freshman English class.

LESSONS ON THE USE OF BOOKS AND LIBRARIES

Tests given by the department in the spring of 1917 showed that pupils in the grades and high school are not being given that training in the use of reference sources which will help to realize the vital, though partial, definition of education which holds that it consists in the ability to find information when it is needed. Almost complete ignorance of the effective use of the most obvious reference sources, such as the encyclopedia, the atlas, the unabridged dictionary, the Blue Book, yearbooks, etc., was revealed by practically all of the several hundred pupils tested in a dozen village and city schools.

The reason for this condition is not far to seek: a definite course of lessons in the use of reference sources has not been a part of the course of study. It would therefore have been remarkable indeed had any appreciably better results been secured in the above mentioned tests.

Evidently the thing to do now is to introduce into all schools a definite course of study in the use of reference sources. This would not have been feasible a few years ago, because of the lack of adequate school libraries for the purpose. But now, with approximately two million books in the school libraries of the state and with annual additions exceeding a hundred thousand volumes, not to mention the resources of public libraries at the disposal of the schools, it would be a serious neglect of duty on the part of those charged with public education to delay this obvious next step in school library progress.

The department has issued a publication entitled *Lessons on the Use of the School Library* to serve as a guide in giving such instruction and in stimulating good general reading. The course therein worked out has been made part of the course of study as outlined in the latest *Manual of the Elementary Course of Study for Common Schools* and in the *Course of Study for State Graded Schools*.

To put such lessons into the course of study is one thing; to get them "across", that is, actually given as outlined is a more difficult matter. To this end, school library institutes are held in different parts of the state under the joint auspices of county superintendents and the department of education; meetings of city teachers are addressed on the subject by the state supervisor of school libraries; the subject is given a place on the program of the annual meeting of supervisors of rural schools; and other feasible means of propaganda are utilized by the department. Ultimately, however, dependence must be placed on the schools training teachers. Teachers should be given training to do this new work just as carefully as they are trained to teach the traditional school subjects. Such training followed up by close supervision will place this vital feature of education on a plane which its importance demands. Some of the training schools are already meeting this situation and an increasing number of superintendents and supervisors are giving it attention when they visit the schools.

HIGH SCHOOL LIBRARIANS

The average library in Wisconsin high schools exceeds one thousand volumes. These libraries are now large enough to serve as effective sources of reference and collateral reading in the various high school subjects and for general reading purposes as well, the latter especially in communities not maintaining a public library.

However, in order to thus fulfill their function the high school libraries must be put in proper shape, that is, organized; they must be efficiently administered from day to day; and lessons must be given on the use of books and libraries. All this requires at least a certain minimum of training on the part of the one in charge of the library and a reasonable time allowance for the work. Certainly the high school library and what it represents in education is as important as the subject of algebra, for example. For years no one has been allowed to teach algebra in high schools without having had at least a mini-

num of preparation in the subject. The same is true of the other traditional high school subjects. It is therefore high time that similar requirements should be made with regard to the one in charge of the high school library.

The department, therefore, announced in the spring of 1917 that, beginning with the school year 1919-20, every high school in the state will be expected to employ as a member of its faculty some one who has had the library training provided by the course for teacher librarians offered by the University of Wisconsin, or its equivalent. High schools enrolling six hundred or more students should employ a full time trained librarian. An arrangement with the public library to supply a properly trained part time or full time librarian will be accepted as a suitable substitute.

The main difficulty in getting this program fully under way at first will be the scarcity of teachers who have had training as teacher librarians. At the suggestion of the department, the following Wisconsin institutions, in addition to the University of Wisconsin, are now offering a course for teacher librarians: Colleges—Beloit, Carroll, Lawrence, Ripon and Milwaukee-Downer; state normal schools—Milwaukee, Oshkosh, Platteville, Stevens Point, and Superior. Summer school courses were this year offered by the University of Wisconsin and by the Milwaukee Normal School. The Extension Division of the University of Wisconsin offers a correspondence course for teacher librarians which has already enrolled a promising number of students from among the high-school teachers of the state. These institutions and others which will doubtless later offer such a course will, it is expected, soon supply a sufficient number of teacher librarians for the high schools of the state.

High school principals are without exception heartily in favor of the movement, for they see in it a means of getting out of the school library the life benefit for the students which goes with the ability to use books and libraries effectively.

THE WISCONSIN READING CIRCLES

To bring to bear to its fullest extent the influence of books and libraries on the pupils, teachers, and school patrons, the schools must generously cooperate with the Wisconsin Reading Circle movement. This account of the movement is here given to emphasize its importance.

Organization

The Wisconsin Reading Circles were organized by the Wisconsin Teachers' Association in 1915. The organization went into effect in the school year 1915-16.

The management is in the hands of a State Reading Circle Board of seven members, of which the State Superintendent and the state supervisor of school libraries are members *ex officio*. The appointive members are named by the Council of Education of the Wisconsin Teachers'

Association for terms of five years, the term of one member expiring each year. The present personnel of the board is as follows:

State Reading Circle Board

G. W. Davies, County Superintendent, Sauk County, North Freedom, Chairman.

C. P. Cary, State Superintendent, Madison.

M. H. Jackson, Principal Wood County Training Schools, Grand Rapids.

Helen Martin, County Superintendent, Walworth county, Elkhorn.

Laura M. Olsen, Librarian Public Library, Eau Claire.

P. J. Zimmers, City Superintendent, Manitowoc.

O. S. Rice, State Supervisor of School Libraries, Madison, Secretary.

Wisconsin Young People's Reading Circle

This has proven a most valuable agency for the stimulation of good and varied reading on the voluntary basis by the pupils in our schools. Diplomas and seals are granted to those who do the required reading. The following data, taken from the latest Reading Circle pamphlet, show a remarkable growth in the number of members during the first three years of its activities.

TABLE 45.—*Growth of the Young People's Reading Circle*

	1915-16	1916-17	1917-18
Number of members.....	5,319	24,802	40,552
Number of counties taking part.....	28	58	67
Number of members—Counties.....	4,676	21,471	34,901
Number of cities taking part.....	4	19	28
Number of members—Cities.....	643	3,331	5,651

Wisconsin Teachers' Reading Circle

The Teachers' Reading Circle aims to promote the reading of professional literature by the teachers and so to serve as an agency for improving teachers in service. Its growth, while not so rapid as that of the Young People's Reading Circle, has nevertheless been very promising, as evidenced by the following data.

TABLE 46.—*Growth of Teachers' Reading Circle*

	1915-16	1916-17	1917-18
Number of diplomas and seals earned.....	908	2,538	3,616
Number of counties taking part.....	24	51	62
Number of cities taking part.....	4	8	12

The Wisconsin School Patrons' Reading Circle

This is a new organization effected at the meeting of the Wisconsin Teachers' Association in November, 1917, and which goes into practical effect this school year, 1918-19. Its objects are to stimulate educational progress, to develop true Americanism, and to contribute to success and the enjoyment of life through the reading of suitable books. Like the Young People's and the Teachers' Reading Circles, the organization is under the supervision of the State Reading Circle Board.

School patrons' reading circles have already proven a success in Ashland and Iron counties, where they have been tried out on local plans for the past year or two. It is confidently expected that such circles will prove of much value to the communities where they will be organized and that they will be an especially effective agency for promoting educational progress. The mental stimulus and broader outlook which they will provide cannot but tend to make its members favorably disposed toward needed educational changes and improvements.

Reading Circle Activities in Cities

TEACHERS' READING CIRCLES

City	No. of Members	City	No. of Members
Beaver Dam	33	Manitowoc	33
Chippewa Falls	25	Park Falls	5
Hayward	5	Peshtigo	12
Janesville	37	Platteville	6
Jefferson	9	Waukesha	35
Kaukauna	11	Waupun	27

YOUNG PEOPLE'S READING CIRCLES

Beaver Dam	313	Oconto	240
Burlington (figs. not available) .....	.....	Onalaska	83
Chippewa Falls	25	Park Falls	10
Elkhorn	105	Peshtigo	175
Fort Atkinson	35	Platteville	200
Hayward	5	Portage	158
Horicon	140	Rice Lake	120
Janesville	523	Sheboygan	665
Jefferson	23	Stanley	55
Kaukauna	124	Stoughton	324
Kenosha (figures not available) .....	.....	Two Rivers	90
La Crosse	423	Viroqua	74
Lake Geneva	74	Waukesha	341
Manitowoc	872	Waupaca	20
Marshfield	225	Whitewater	200

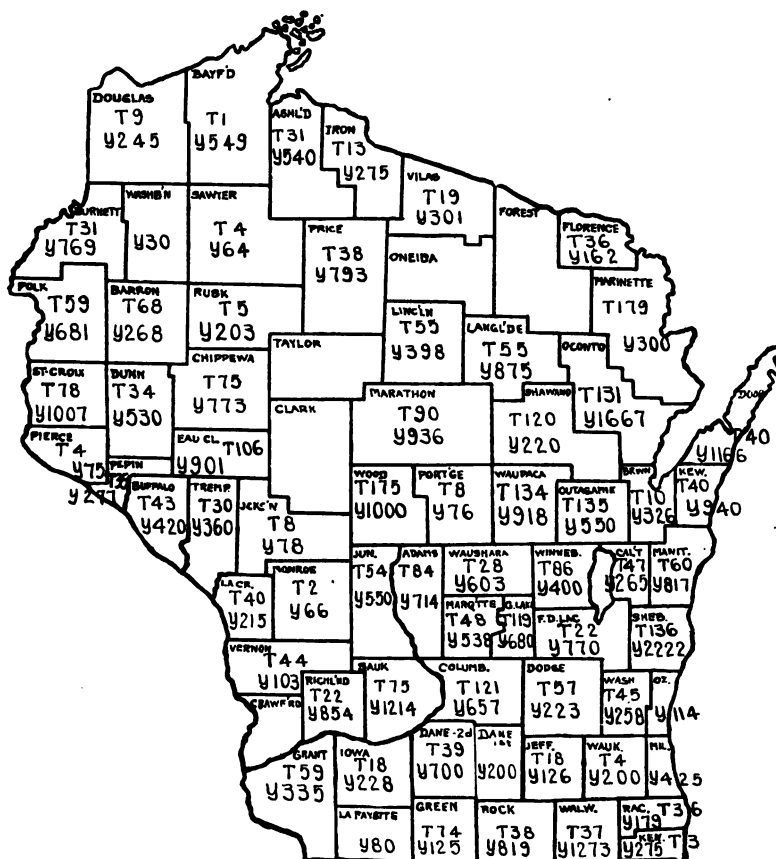


FIGURE 12.—*Reading Circle activities in schools under the supervision of county superintendents*

Abbreviations: T—Teachers' Reading Circle membership; Y—Young People's Reading Circle membership.

DATA RELATING TO SCHOOL LIBRARIES.

	1916-17		1917-18	
	No. of volumes	Cost	No. of volumes	Cost
All school libraries.....	1,878,086	\$1,041,822	1,931,376	\$1,110,017
Added during the year.....	116,035	74,203	107,221	73,533
School libraries under jurisdiction of county superintendents.....	1,664,478	887,754	1,715,636	936,546
Added during the year.....	98,236	59,073	89,361	55,946
School libraries in cities under city superintendents.....	208,608	154,068	215,738	173,471
Added during the year.....	17,799	15,130	20,215	17,587 ¹
Rural school libraries.....	1,148,631	552,792	1,185,817	592,908
Added during the year.....	64,087	34,788	56,363	32,000 ¹
State graded school libraries.....	229,015	127,258	230,182	127,900
Added during the year.....	15,739	9,761	14,911	9,393 ¹
High school libraries.....	371,942	303,810	382,355	312,102
Added during the year.....	27,476	30,502	24,167	26,189
High school libraries and grades below (counties).....	296,832	207,704	299,637	215,738 ¹
Added during the year.....	18,500	14,524	18,029	14,423 ¹
Purchased with township library fund...	86,809	46,239	76,829	43,510
Rural schools.....	54,075	27,329	46,321	24,063 ¹
State graded schools.....	12,211	6,985	11,285	6,979 ¹
High schools and grades below (counties).....	9,482	5,917	9,097	6,322
County schools.....	75,768	40,231	66,703	37,364
City schools.....	11,041	6,008	10,126	6,146
Purchased with local funds, including gift books—				
Rural schools.....	10,012	7,459	10,042	7,341
State graded schools.....	3,528	2,776	3,626	2,822
High schools and grades below (counties).....	9,018	8,607	8,932	8,418
County schools.....	22,558	18,842	22,600	18,581
City schools.....	6,758	9,122 ¹	10,089	11,441 ¹
Average number of volumes in—				
Rural school libraries.....	174		180	
State graded school libraries.....	370		369	
High school libraries.....	1,019		1,014	
Rebinding ²				
Rural school libraries.....	2,227		2,519	
State graded school libraries.....	1,388		1,032	
High schools and grades below (counties).....	2,409		2,466	
High schools.....	5,367	2,093	5,562	3,255
Loans (recorded) ³				
Rural school libraries.....			324,271	
State graded school libraries.....	No report		431,441	
High school libraries.....			327,342	

¹ Estimated in part.² Figures reported for cost of rebinding were on the whole apparently unreliable, hence they are not included for any schools except high schools, for which they seem to be reliable. About fifty cents per volume may be considered as the cost on the average.³ Figures for loans apparently incomplete; 1917-18 was the first year for which they were reported.

NUMBER OF LIBRARIES.

	1916-17	1917-18
Number of school libraries, not including grade libraries in cities ¹	7,583	7,642
Rural schools	6,601	6,642
State graded schools.....	617	623
High schools	365	377

¹ Based on the number of schools of each class.

CHAPTER XII

AMERICANIZATION AND THE SCHOOLS

A Wisconsin lawyer was trying a case. One of the witnesses required an interpreter. The lawyer asked in what country he was born and the answer came, "In Wisconsin." Born in this state presumably he had received some schooling here, yet he could not speak enough English to give testimony.

In another section of the state motorists who lost their way had to inquire at fourteen houses before they found anyone who could speak enough English to direct them. As a knowledge of English is a requirement for citizenship it is evident that many families in this district were indifferent to the reception of the benefits of citizenship and to the assumption of its obligations.

Seventy-six men from a country district presented themselves to a Wisconsin draft board. Sixty spoke German only, or a very few words of English. Unable to understand the language of the country they were to defend one naturally wonders what they knew of its ideals.

These are not isolated cases. The Federal census for 1910 shows that at that time there were *120,665 non-English speaking residents over ten years of age in Wisconsin*. It is fair to assume that this number has increased rather than diminished during the intervening years, as immigration was heavy during the early years of this decade and the great majority of these immigrants came from non-English speaking countries.

Before the war the foreignized character of our population caused little or no perturbation among the general public. Subsequent facts throughout the country at large have thrown a searchlight upon the dangers arising from such conditions and every community should now be eager to correct them. The problem is two-fold, namely: (1) that of making good Americans of the rising generation, and (2) that of Americanizing the adult population.

AMERICANIZING THE RISING GENERATION

The Americanization of the rising generation is largely a problem dealing with native born children, for 88.5% of the foreign speaking immigrants arriving in this country are over 19 years of age and thus beyond the influence of the public day school. Many native born

children, however, are sons and daughters of immigrant parents and upon entering school are quite as foreignized as though they themselves had lived in foreign lands. Such children need not afford a serious problem in the public school if their needs are studied and properly met. Indeed, if their home, school, and neighborhood environments are good, it is sometimes difficult in a short time to distinguish between such children and those coming from American homes. The Americanization problem in the public school is therefore not to be viewed solely from their angle though their presence creates a condition that calls for special consideration and not infrequently for the organization of special classes. This is particularly true when the children of foreign parentage are descendants of culturally backward people. It is therefore recommended that the needs of heterogeneous groups be carefully studied by local school people and that as a result there be formed such special classes as may be required.

The Problem of American School

The school's Americanization problem is to make possible for each child realization of the American tradition of opportunity that lured his forebears to our shores. While it continues to plan its work for a conventionalized average child it does not offer opportunity to all for it neglects superior as well as slow children. Its failure to recognize that differences in physical equipment, native ability, home environment produce groups of children with varied powers of attention, varied energies, abilities, and interests has resulted in its failure to recognize the different needs of children and to give adequate opportunities for development to a number of pupils. As a consequence large numbers have dropped out upon reaching the end of the compulsory school period. Economic pressure alone has not been responsible for this as many cases can be traced directly to pupil dissatisfaction with the school. *The fact that they have dropped out at the earliest possible moment means that the instruction they have received in citizenship, hygiene, and other social subjects has been too limited to insure an intelligent citizenship.* Furthermore it means that many young people have been too meagerly equipped to earn a livelihood enabling them to maintain American standards of living. If the coming generation is to be representative of a high type of Americanism the great majority of our boys and girls must receive more schooling—the door of opportunity must be opened to them. All schools must study the reasons why they fail to hold pupils, must study the types of children dropping out, and as a consequence of this study must reorganize their courses of study and establish such flexibility as will enable them to meet the needs of slow, average, and superior pupils. Only when the school considers the special needs of each child will it be living up to the best American ideal—the ideal that believes in giving every child the fullest possible opportunity for development in accord with his capacity.

Continuation Schools

One of the purposes in the minds of those who secured legislation establishing the continuation school was to minister to the needs of pupils who of necessity or choice drop school at the age of fourteen. The continuation school law makes it imperative that such pupils continue to attend school for a few hours every week until they attain their seventeenth year. This law, however, reaches a comparatively small number as such schools are established only in cities with a population of 5000 or more. Since these continuation schools have passed beyond the control of the public school system there is grave danger that the needs of the pupils attending them may be subordinated to those of the employer of labor. Should this happen, and it is not a fancied possibility, the foundations of Americanism would be undermined in Wisconsin for discrimination favoring employers at the expense of boys and girls would tend to establish a caste system which has no place in a democracy.

Instruction in English in Private and Parochial Schools

Not all of the coming citizens of Wisconsin are enrolled in public schools. Many attend private or parochial schools. A question frequently asked is one regarding the amount of English taught in such schools. No statistics regarding this have been available to the state department. It has been unofficially informed, however, of the following facts. There are many parochial schools in Wisconsin where English is the only language taught. There are others in communities composed of foreign born groups where the parochial school teaches the common school branches in English and gives religious instruction in a foreign language. Previous to the present year there were parochial schools in which half the instruction was in a foreign language. It has been learned indirectly that the bishops of the Catholic church have now voted to use English in their schools for the teaching of all common school branches, permitting the religious instruction in a foreign tongue when the local community desires that this be done. It is hoped that parochial school teachers in these communities will be successful in establishing sentiment that will result in the voluntary abandonment of this latter practice.

It has been unofficially learned from Lutheran sources in Wisconsin that in their churches and schools the change to the English language has been a hard going one, with great difficulty and will doubtless continue to be so.

The fact that English is superior to a foreign language in parochial schools is an axiom and makes out for it the graduates of these schools are in contact with public school graduates they must have as their only speaking or the language of the country as is given in the public schools. Public elementary school instruction is given in English. This should not be one of the parochial elementary instruction.

Provision for Immigrant Work

Immigrant and non-English speaking children and adults should be taught by our schools. The Wisconsin legislature in 1911 passed a

law requiring such persons to attend evening or continuation school where such schools are established but this law reaches a relatively small number as but 32 of our cities have continuation or evening schools.

New York passed a law at the last session of its legislature which compels the attendance of every non-English speaking or illiterate minor from 16—the upper limit of the compulsory school age—to 21 years of age at a day, evening or industrial school. The law also requires local school authorities to maintain school facilities where 20 or more such persons reside.

Massachusetts has a similar law. Literacy in Massachusetts is interpreted by law to mean “such ability to read and write as is required for completion of the fourth grade”. Wisconsin’s standard for literacy has not been specifically defined, which means that it is lower than this. It is advisable that we adopt a correspondingly high standard and that we create an enlightened public opinion that will seek means of reaching and transferring our non-English speaking and illiterate minors to the English speaking and literate class. No amount of legislation will do this unless backed by public sentiment and promoted with a friendly spirit of helpfulness that is wholly untinged by patronage.

AMERICANIZATION OF ADULTS

In the past this has been accomplished more by accident than by design. Many having acquired a knowledge of the language have become Americanized by means of daily papers, by association, and by contact with American life on all sides. Because this process has been largely accidental, large numbers of foreign born people have settled among us and have not been assimilated. They have kept their own language, read only foreign language papers, retained their old-world point of view, clung to its customs, and brought up foreign children on American soil. We were negligent in permitting this to happen. We must now be vigilant in preventing its continuance.

Something Better Than the Usual Night School

In some Wisconsin cities measures have been undertaken to teach English and citizenship to foreigners. Night schools have been established for this purpose. Their establishment indicates effort in the right direction but unless they are well conducted they not only fail to teach their students, but result in discouraging them. The history of night schools throughout the country at large has been that they have not always been successful. This has been due to a combination of causes. Night school students are exhausted after a hard day’s work, day school-teachers do the teaching and they, too, are exhausted and being unacquainted with methods of teaching adults their teaching has not been effective. These facts have caused a dropping off of attendance. Why should a tired man exert himself to attend night school when he sees that he is making little progress? We must have

a trained body of teachers for this work, methods suited to children are not suited to adults, the classes must yield satisfaction to their patrons, they must make progress. Whenever it is possible, it is advisable to substitute for night classes daytime classes in factories or other places where foreigners are working. This necessitates the providing by the employer of the room and equipment and should mean the supplying of a teacher by the city, for this extension work should be done under the direct supervision of the public school. A vital question here is "Who shall pay for the employee's time while he attends these factory classes?" In some cases the employer has done this but these are few. A matter of such importance should not be left to the chance goodwill and generosity of individual employers. The education of the illiterate and non-English speaking adult is a matter affecting the civic life of the nation and as such is a matter of government concern and this responsibility should be assumed by the government. The returns that the country would receive in the way of enlightened citizenship and industrial efficiency would more than pay for the expenditure.

Meeting the Needs of the Mothers

Only recently has the need of Americanizing the mother been recognized. We have seen disintegrated homes where children lose respect for the mother because of her unfamiliarity with American ways and English speech. We have seen gulfs widening between mothers and children and have taken no measures to bridge them. We have seen mothers, confused by the strangeness of everything in the new land, turn to the children for an interpretation of things American. These things must be changed. The mother must be Americanized. The child is unfitted to interpret life to the parent. If the Americanization process is to be thorough and complete, we must make Americans of foreign women. We must make the homes of our land 100 per cent American if we wish to have the rising generation American in thought and deed.

We cannot reach the great mass of foreign women in night schools. They have to stay home with the children, or the pressure of work keeps them busy at night, or their husbands won't allow them out evenings. Afternoon classes are necessary to meet the convenience of such women, and English and home-making subjects should be taught them. Such classes have been administered with great success in different sections of the country and as a consequence the general standard of living of the foreign groups in these sections has been greatly improved.

This extension work among foreign speaking people is an important undertaking for the public school to assume, a most necessary undertaking if we are to make citizens of the foreign element, if we are to give them our language, give them an understanding and love for American ideals, give them an opportunity to make American friendships, and make the new land home to them. Social gatherings should be arranged in connection with these adult classes. They not infre-

quently furnish the only recreational possibilities that these men and women have.

AMERICANIZATION IN OUR CITIES

Some of the larger cities in the state are giving very careful study to their local Americanization problem. Milwaukee has organized its forces admirably for this purpose. Every important organization in the city is doing its part to Americanize Milwaukee's foreign element. A week's conference was conducted in the fall of 1918 under the auspices of the Woman's Club and the Americanization Committee of the Council of Defense for the purpose of arousing general interest in the subject and by studying it, to secure a larger group of workers. Recognized leaders of national note presented various aspects of the problem and an enthusiastic interest was generated.

Sheboygan has also surveyed its situation carefully and is utilizing on a broad scale its community agencies in the development of this work. In 1917 in addition to its regular night school it organized special classes for foreign women. These have been very successful.

Other Wisconsin cities are offering classes to foreign men and women. More should do so.

Of forty cities answering questionnaires on Americanization the following report night classes for foreign-born men and women.

Cities	Enrollment	Cities	Enrollment
Antigo.....		Manitowoc.....	14
Appleton.....	12	Marinette.....	27
Beloit.....		Menomonie.....	6
Chippewa Falls.....	12	Milwaukee.....	322
Grand Rapids.....	22	Oshkosh.....	
Janesville.....		Sheboygan.....	600
Madison.....	25	Wausau.....	16

No factory classes are reported, and but two cities, Beloit and Sheboygan, have afternoon classes. Under the heading *other agencies conducting Americanization classes*; 3 indicate the continuation school, and one city lists Italian and negro missions and social centers.

WAR SAVINGS SOCIETIES AND THE RURAL PROBLEM

The Americanization problem in Wisconsin is not confined to cities. It is a rural problem as well. In order to secure some idea of its extent in rural districts a questionnaire was sent to County Superintendents asking for the location of communities in which a foreign language is in more general use than English and for the approximate population in these districts. All replies were not returned in time for this report therefore the accompanying table is incomplete.

TABLE 47.—*Number and Language of Communities Where Foreign Language is now Commonly Spoken more than English.*

County	District	Town	Language	Approximate population
Ashland.....	2.....	Ashland.....	Finnish.....	100
	2.....	Marengo.....	".....	120
	1.....	White River.....	".....	20
Bayfield.....	1.....	Oulu.....	Finish.....	1,000
	3.....	Pilsen.....	Slav.....	600
	Old 3.....	Bell.....	Russian.....	50
	1.....	Drummond.....	Norwegian.....	800
	1.....	Mason.....	".....	600
	1.....	Kelly.....	".....	180
	1.....	Lincoln.....	".....	180
Brown.....	1.....	Green Bay.....	Belgian.....	500
	Jt. 3.....	".....	".....	
	4.....	".....	".....	
	2.....	Humboldt.....	".....	500
	1 & Jt. 6.....	".....	".....	
	3 & 3.....	Suamico.....	Polsh.....	
	3.....	Pittsfield.....	".....	200
Chippewa.....	1.....	Eaton.....	German.....	200
	1, 2, 3.....	Morrison.....	Polish.....	700
	1-Jt. 2-3-5-6.....	Wrightstown.....	German.....	400
	Jt. 7.....	".....	".....	800
	8.....	Arthur.....	Polish.....	15
Clark.....	2.....	Colburn.....	".....	6
	4.....	".....	".....	".....
	4-5.....	Hendren.....	Bohemian.....	300
	6.....	Hoard.....	Finnish.....	100
	7.....	Levis.....	Bohemian.....	50
Columbia.....	5.....	Thorp.....	Polish.....	75
	6.....	".....	".....	100
	Jt. 1 H.....	Withee.....	".....	100
	Jt. 1 R.....	".....	".....	100
	2.....	".....	".....	100
	Jt-2 Tur.....	".....	".....	100
	3.....	".....	".....	50
	Jt. 4 T.....	".....	".....	100
	Jt-10.....	Randolph.....	Dutch.....	109
	2.....	Brule.....	Finnish.....	200
Douglas.....	1.....	Maple.....	".....	600
	1.....	Lakeside.....	".....	500
	1.....	Superior.....	Swedish.....	800
	1 & 2.....	Bennett.....	".....	200
Dunn.....	1, 2, 3.....	Sand Creek.....	Norwegian.....	600
	4.....	Red Cedar.....	German.....	*
	Jt. 6.....	Tiffany.....	Slav.....	*
	2, 5, 7.....	Weston.....	German.....	*
	Jt. 1.....	Wilson.....	Norwegian.....	*
Eau Claire.....	2.....	Wheeler (Vill.).....	".....	*
	2.....	Lincoln.....	German.....	100
Fond du Lac.....	2.....	Bridge Creek.....	".....	125
	.....	Ashford.....	German.....	750
	.....	Calumet.....	".....	700
	.....	Marshfield.....	".....	700
	.....	Taycheedah.....	".....	800
Forest.....	.....	Alto.....	Dutch.....	800
	.....	Armstrong Cr.....	Polish.....	300

*Foreign population not estimated.

TABLE 47.—Continued

County	District	Town	Language	Approximate population
Green	2-3, Jt. 4-5	New Glarus	Swiss	600
	Jt. 3	York	Swiss and German	100
	Jt. 4, 5, 6	Washington	Swiss	250
	5	Exeter	"	100
Iron	Jt. 2	Van Buskirk	Finnish	300
	Jt. 1	Hurley	Italian	3,453
Jackson	3 & 7/4	City Point	Polish and Bohemian	*
	1, 2, 5, 8	Komensky	Bohemian	
	Jt. 5	Millston	"	
	1	Franklin	Norwegian	
Juneau	4 & 5	Garfield	"	
	.....	Armenia	Polish	
	No. 1	Germantown	German	
	7	Lindina	Norwegian	
Kewaunee .....	.....	Marion	German, Polish	153
	3	Franklin	Bohemian	250
	5	"	"	250
	1	"	"	225
	6	Carlton	"	200
	4	"	"	225
	1	Montpelier	German	225
	2	"	"	200
	6	Red River	Belgian	200
	1	"	"	200
	2	"	"	200
	3	"	"	200
La Crosse	Jt. 6	Washington	Norwegian	*
	Jt. 7	"	"	
	3	"	German	
	3	"	Bohemian, German	
	2	"	Bohemian	
	1	"	German	
	8	Barre	"	
	6	"	"	
	Jt. 9	"	"	
	7	Farmington	"	
	9	"	Norwegian	
	1	Greenfield	German	
Langlade	4	Hamilton	"	
	Jt. 7	Shelby	"	
	2	"	"	
	3	"	"	
Lincoln	5	Ackley	Polish	114
	2	Elcho	"	21
	6	Polar	Bohemian	54
	3	Neva	"	96
Manitowoc	All of	Scott	German	*
	"	Corning	"	
	"	Pine River	"	
	1	Harrison	Dutch	
	Jt. 3	Russell	Russian	
Manitowoc	Jt. 5	Birch	German	
	3	Schley	"	
	.....	Schleswig	German	
	.....	Eaton	"	
	2-Jt. 2-6, 10	Rockland	"	
	3 and 4	Maple Grove	"	
	3	Cooperstown	"	
	1, 2, 4, 5, Jt. 3	Centerville	"	
Manitowoc	1, 2, 4, 5, Jt. 6	Meeme	"	1,300
	1, 9, 8, Jt. 8	Newton	"	1,000

TABLE 47.—Continued

County	District	Towns	Language	Approximate Population
Marquette	1, 2, 3, 4 Jt. 4	Crystal Lake	German	250
	5, 6, 7	Mecan	"	300
	8	"	Polish	100
	6, 7	Newton	German	80
Oconto	1, 2, Jt. 11.	Gillett	German	264
	1 to 6	Underhill	"	350
	1, 2, 5, 6, 9.	Howe	"	368
	1, 2, 3	Breed	"	125
	4	Lost River	"	70
	6	Chase	"	77
	1	Morgan	"	42
Ozaukee	2-5, 7, 3, Jt. 10	Belgium ..	German	1,500
	3, 8	Fredonia ..	"	800
	4	Pt. Wash. ..	"	150
	4-5	Cedarburg ..	"	125
Pierce	All	Mequon	"	600
	Jt. 8	Mortell	Norwegian ..	1,155
	8 and Jt. 10	Gilman	"	1,088
	Jt. 8	Oak Grove ..	German	100
Polk	Jt. 1	Trimbelle ..	"	90
	Jt. 1	McKinley ..	Swedish & Norwegi'n	40
	6	Farmington ..	German	175
	1	Lincoln	Swedish & French ..	125
	Conl. 1 ..	Apple River ..	Swedish	200
	3	Black Brook ..	Norwegian	200
	2	Eureka	Dane and Norwegian	100
	1	West Sweden ..	Swedish	175
	4	Lorraine	German and Dane ..	100
	3	Osceola	Swedish	120
Price	5	Farmington ..	German	150
	1-2	Fifield	German	600
	4-5	Emery	Bohemian	300
	4	Hill	Finnish	500
	1, 2-3	"	Swedish and Finnish ..	900
	2, 3, 4, 8, 11	Lake	German	1,000
	"	Ogema	Swed. Dannish	600
Racine*	1, 2, 3, 4 ..	Brannan	"	1,000
	2, 3, 4, 6, 7.	Worcester ..	Ger. Boh.	900
	1, 2, 4	Elk	Ger., Boh., Aust	900
	8	Caledonia	Slav	*
Rusk	19	"	"	"
	Jt. 4	Willard & Marshall..	Polish	200
	Jt. 1	Strickland & Stubbs.	"	125
	4	"	"	140
	5	"	"	115
	2	Rusk	Bohemian	150
St. Croix	1	Wilson	"	100
	3, 5, 2 & 4 Jt.	Somerset	French	300
	6-Jt. 2	"	German	150
	Jt. 1	VII. Somerset ..	Fr. and Ger.	300
	6	Eau Galle	Norwegian	75
Sauk	3	Cady	German	100
	Jt. 3	Prairie du Sac	"	100
	1, 4, 6, 7, 8.	Honey Creek ..	"	415
	Jt. 5 Jt. 10-3, 4	Franklin	"	350
	Jt. 6	Troy	"	60

TABLE 47.—Continued

County	District	Town	Language	Approximate population
Shawano	3-5.....	Angelica.....	German.....	486
	4-Jt. 6.....		Polish.....	675
	1.....	Aniwa.....	German.....	219
	1-4.....	Fairbanks.....	".....	348
	1-8.....	Germania.....	".....	200
	Jt. 7.....	Grant.....	".....	120
	2, 3, 4-Jt. 1.....	Hartland.....	".....	993
	2.....	Herman.....	".....	261
	5-Jt. 6.....	Maple Grove.....	Polish.....	500
	2.....	Pella.....	German.....	221
	2 Jt. 1, Jt. 2.....	Richmond.....	".....	575
	Jt. 4.....	Seneca.....	".....	237
	4.....	Wash.....	".....	225
Sheboygan.....	1, 2, 3.....	Mosel.....	".....	1,000
	2, 3, 4, 5, 6, 7.....	Herman.....	".....	2,000
	All.....	Rhine.....	".....	2,000
	Jt. 20-10, 14, 6.....	Sheb. Falls.....	".....	1,000
	6, 2, 4.....	Wilson.....	".....	1,000
	4, 6, 7 & 5.....	Sheb.....	".....	1,000
	6.....	Holland.....	".....	500
	Jt. 1.....	Russell.....	".....	300
	5.....	Lima.....	Dutch.....	300
	9.....	Holland.....	".....	300
Taylor.....		Roosevelt.....	Polish.....	.....
Trempealeau...	No. 5.....	Albion.....	Norwegian.....	
	Jt. 4.....			
	Jt. 1.....	Arcadia.....	Polish.....	
	3.....	".....	".....	
	10.....	".....	".....	
	Jt. 4.....	Preston.....	Norwegian.....	
	2.....	Dodge.....	Polish.....	*
	3.....			
	Jt. 6.....	Ettrick.....	Norwegian.....	
	2.....	Burnside.....	Polish.....	
Washburn	1.....	Chimney Rock.....	Norwegian.....	
	3.....	Pigeon.....	".....	
	2.....	Barronett.....	German.....	60
	4-6.....	Sarona.....	Bohemian.....	175
Washington	6-4.....	Barronett.....	Swedish.....	250
	2, 3 & 8, 9.....			
	8, 10.....	Jackson.....	German.....	455
	7, 8, 10.....	Addison.....	".....	430
	1, 2, 3.....	Kewaskum.....	".....	210
Waupaca	2.....	Germantown.....	".....	80
	4.....	Richfield.....	".....	85
	All.....	Harrison.....	Norwegian.....	400
	3, 4, 5.....	Iola.....	".....	300
	All.....	Scandinavia.....	".....	1,280
	".....	Caledonia.....	German.....	800
	".....	Dupont.....	".....	900
	".....	Helvetia.....	Norwegian & German.....	500
	†.....	Larrabee.....	German.....	1,200
	†.....	Bear Creek.....	".....	900
	†.....	Weyauwega.....	".....	300
	†.....	Lind.....	".....	500

*Not estimated

TABLE 47.—Continued

County	District	Town	Language	Approximate population
Waushara .....	.....	Bloomfield.....	German.....	800
	.....	Dakota.....	"	500
	.....	Richford.....	"	500
	.....	Saxeville.....	"	400
	.....	Coloma.....	"	300
	.....	Deerfield.....	"	200
Winnebago.....	.....	Poyssippi.....	"	400
	6.....	Wolf River.....	"	75
	3.....	"	"	50
	Jt. 9.....	Winchester.....	"	50

ILLITERACY

Illiteracy is another phase of the Americanization problem that should be receiving attention. According to the last Federal statistics there are 57,769 illiterates over 10 years of age in Wisconsin. The earning capacity of an illiterate is smaller than that of a literate. His industrial and civic contributions are of less consequence. In order that he may participate fully in the life of the community and render his best service it is essential that every illiterate capable of being taught be transferred to the literate class. The following tables show the distribution of illiterates in Wisconsin by counties and cities.

Though this is merely an estimation it is sufficiently accurate to indicate the foreignized character of our rural population, and to make it very evident that means should be found of substituting English for foreign languages in country districts. Teaching will be ineffective unless accompanied by association with American neighbors. In rural as well as in urban sections community gatherings provide one of the best means of Americanization. The Treasury Department has recently issued a pamphlet on War Savings Societies for adults which it is hoped will stimulate the formation of societies and provide a basis for community gatherings throughout the country.

ILLITERACY STATISTICS OF WISCONSIN

Persons 10 years old and over		
Total number illiterate.....		57,769
Per cent.....		3.2
Males of voting age		
Total number illiterate.....		27,038
Per cent		4.0
Persons 10 to 20 years inclusive		
Total number illiterate.....		3,798
Per cent.....		0.7

By Counties

(10 years old and over)

	No.	Per cent		No.	Per cent
Adams.....	149	2.3	Price.....	243	2.4
Ashland.....	905	5.5	Racine.....	1,247	2.7
Barron.....	550	2.5	Richland.....	441	3.0
Bayfield.....	352	3.0	Rock.....	824	1.8
Brown.....	2,867	7.0	Rusk.....	203	2.5
Buffalo.....	312	2.6	St. Croix.....	354	1.7
Burnett.....	225	3.3	Sauk.....	645	2.4
Calumet.....	108	0.8	Sawyer.....	420	9.0
Chippewa.....	1,247	5.0	Shawano.....	1,292	5.5
Clark.....	940	4.2	Sheboygan.....	1,052	2.4
Columbia.....	315	1.2	Taylor.....	302	3.1
Crawford.....	306	2.4	Trempealeau.....	584	3.3
Dane.....	1,093	1.8	Vernon.....	468	2.2
Dodge.....	913	2.4	Vilas.....	440	9.7
Door.....	706	5.0	Walworth.....	285	1.2
Douglas.....	1,084	2.6	Washburn.....	148	2.5
Dunn.....	686	3.5	Washington.....	255	1.3
Eau Claire.....	681	2.6	Waukesha.....	490	1.6
Florence.....	141	5.4	Waupaca.....	657	2.6
Fond du Lac.....	704	1.7	Waushara.....	808	2.1
Forest.....	195	4.0	Winnebago.....	1,222	2.4
Grant.....	569	1.8	Wood.....	634	2.8
Green.....	304	1.8			
Green Lake.....	619	5.1			
Iowa.....	299	1.7			
Iron.....	289	4.8			
Jackson.....	542	4.1			
Jefferson.....	233	0.8			
Juneau.....	590	3.8			
Kenosha.....	1,147	4.4			
Kewaunee.....	1,237	9.8			
La Crosse.....	1,156	3.2			
Lafayette.....	386	2.4			
Langlade.....	331	2.6			
Lincoln.....	253	1.8			
Manitowoc.....	913	2.6			
Marathon.....	1,165	2.9			
Marinette.....	1,598	6.3			
Marquette.....	370	4.4			
Milwaukee.....	12,255	3.5			
Monroe.....	463	2.0			
Oconto.....	1,435	7.7			
Oneida.....	366	4.3			
Outagamie.....	1,091	2.9			
Ozaukee.....	374	2.8			
Pepin.....	109	1.9			
Pierce.....	486	2.8			
Polk.....	477	3.0			
Portage.....	1,716	7.5			

Cities

25,000 or over

Green Bay.....	1,123	5.7
La Crosse.....	637	2.5
Madison.....	343	1.6
Milwaukee.....	10,765	3.6
Oshkosh.....	714	2.7
Racine.....	1,127	3.6
Sheboygan.....	672	3.2
Superior.....	850	2.7

10,000 to 25,000

Appleton.....	219	1.3
Ashland.....	366	3.2
Beloit.....	220	1.5
Eau Claire.....	228	1.2
Fond du Lac.....	304	1.6
Janesville.....	202	1.5
Kenosha.....	979	4.6
Manitowoc.....	145	1.1
Marinette.....	596	4.1
Wausau.....	277	1.7

ILLITERACY STATISTICS OF WISCONSIN--Continued.

<i>Cities</i> 2,500 to 10,000		<i>Cities</i> 2,500 to 10,000	
	Number		Number
Antigo.....	82	Plymouth.....	46
Baraboo.....	79	Port Washington.....	160
Beaver Dam.....	272	Portage.....	29
Berlin.....	329	Prairie du Chien.....	84
Burlington.....	11	Reedsburg.....	47
Chippewa Falls.....	285	Rhineland.....	100
Columbus.....	45	Rice Lake.....	40
Cudahy.....	122	Richland Center.....	36
DePere.....	189	Ripon.....	79
Edgerton.....	27	Shawano.....	18
Fort Atkinson.....	30	South Milwaukee.....	73
Grand Rapids.....	123	Sparta.....	36
Hartford.....	7	Stanley.....	15
Hudson.....	14	Stevens Point.....	218
Jefferson.....	15	Stoughton.....	26
Kaukauna.....	44	Sturgeon Bay.....	55
Lake Geneva.....	16	Tomah.....	31
Marshfield.....	55	Tomahawk.....	49
Menasha.....	108	Two Rivers.....	53
Menomonie.....	215	Washburn.....	105
Merrill.....	98	Watertown.....	83
Mineral Point.....	33	Waukesha.....	145
Monroe.....	31	Waupaca.....	6
Neenah.....	46	Waupun.....	55
New London.....	76	Wauwatosa.....	21
Oconomowoc.....	62	West Allis.....	225
Oconto.....	163	Whitewater.....	41
Platteville.....	69		

A TASK FOR EVERY CITIZEN

The situation set forth in this chapter shows that Wisconsin has an Americanization problem of some magnitude. All forces should unite for the purpose of solving it. Help may be secured from local school people, from the U. S. Bureau of Education, from the State Department of Public Instruction and from the University. An Americanization department has been established in the University with Mr. Don G. Lescohier as director. It is his plan to utilize all the available agencies in the state in meeting this problem. Under his direction a collection of reference material on the subject is being assembled at the University and a study has been undertaken of methods employed in the teaching of English and citizenship to foreigners. Courses in these subjects are being organized for distribution. In addition it is planned to give at various centers in the state short courses of extensive training for those who desire to teach foreigners.

Wisconsin has made a beginning but much remains to be done and every community should consider itself self-conscripted for this great national task. We must no longer allow the foreign-born to be isolated elements but must make them integral parts of our civic and social life. They must be recognized not merely as industrial assets but must be helped to make their human and social contribution to American life. Only when the older residents of the country recognize the spiritual values of the new comers and help them to realize the high hopes that brought them to our shores—only then will they make of them Americans with one language and one loyalty.

CHAPTER XIII

HEALTH EDUCATION IN WISCONSIN

IMPORTANCE

"Instruction in health should be the most vital part of every child's education; and it necessarily must be given early while the child is at the receptive age."

L. EMMETT HOLT, M. D.

Health is the basis of efficiency. A few instances are well-known of persons physically weak who have made great contributions to the world's progress, but no one denies that with good health, these same people and countless others could have accomplished immeasurably more of worth to themselves and to the world. Knowing this as we do, and now brought face to face with appalling conditions of disability on the part of our young men as revealed by army statistics we still continue to neglect health instruction and the enforcement of health measures. We seem to be *unconscious of the great economic, political and social loss constantly accruing.*

Conditions in Wisconsin warrant most careful consideration which must be followed by active measures for improvement of existing conditions and provision for such adequate continuous health supervision that constant advancement in the physical standards of the people of Wisconsin will result. This is absolutely necessary if the state is to meet successfully the steadily increasing economic problems.

NATIONAL HEALTH CONDITIONS

"We cannot afford, while losing our boys in France to lose children at home."

SECRETARY OF WAR BAKER.

Food and Health

The extremely high cost of foods has had its direct effect on health conditions. During 1917 under the partial direction of Columbia University an investigation covering one hundred representative households showed that 76 of these were getting too little food. Malnutrition is not limited to the families of the poor. A county survey made in Renville Co., Minnesota before the war revealed the fact that 38% of the children of pre-school age in that county were underfed.

Malnutrition paves the way for tuberculosis which is the deadliest foe of the wage earner. From France, England, Belgium and Germany come reports of an alarming increase of tuberculosis because of food restrictions. The New York City Department of Health makes the following comment on the increase of tuberculosis in that city during 1917. "That this reflects in a measure the increased cost of food in this city during the past year is highly probable and it should cause us more than ever to give attention to the problem presented by malnutrition in school children."

Serious as is the food problem in its relation to the conservation of health it is only one of many matters which must be considered in an analysis of present conditions throughout the country.

War's Emphasis on Health Education

Dr. Thomas D. Wood, M. D. Teacher's College, Chairman of the Committee on Health Problems of the National Council of Education, in his pamphlet; *War's Emphasis on Health Education* gives the following conservative though startling account of the general health conditions which obtain in the United States at the present time.

"Our schools are wasting enormous sums in educating, or trying to educate, the children who are handicapped by ill health when the expenditure of much smaller amounts in a judicious health program would produce an extraordinary saving in economy and efficiency. A dollar spent promptly in a timely, constructive effort to conserve a child's health will be more fruitful for the child and for human society than will a thousand dollars applied twenty years later. The principle of national thrift finds its first and most vital application in the conservation and improvement of the health of the children.

At least one per cent—200,000 of the 22,000,000 school children in the United States are mentally defective.

Over one per cent—250,000 at least, of the children are handicapped by organic heart disease.

At least five per cent—1,000,000 children have now, or have had tuberculosis, a danger often to others as well as to themselves.

Five per cent—1,000,000 of them have defective hearing, which unrecognized, gives many the undeserved reputation of being mentally defective.

Twenty-five per cent—5,000,000 of these school children, have defective eyes. All but a small percentage of these can be corrected, and yet a majority of them have received no attention.

Fifteen to twenty-five per cent—3,000,000 to 5,000,000 of them are suffering from malnutrition, and poverty is not the most important cause of this serious barrier to healthy development.

From fifteen to twenty-five per cent—3,000,000 to 5,000,000 have adenoids, diseased tonsils, or other glandular defects.

From ten to twenty per cent—2,000,000 to 4,000,000 have weak foot-arches, weak spines, or other joint defects.

From fifty to seventy-five per cent—11,000,000 to 16,000,000 of our school children have defective teeth, and all defective teeth are more or less injurious to health. Some of these defective teeth are deadly menaces to their owners.

Seventy-five per cent—16,000,000 of the school children of the United States have physical defects which are potentially or actually detrimental to health. Most of these defects are remediable.

One of the appalling revelations of recent years is the conclusion based on unrefuted evidence *that the rural school children in this country are handicapped by more physical defects than the pupils in the city schools.* While several significant causes seem to be responsible for this astounding condition, the present physical inferiority of country children depends in part upon the fact that city children now receive more health care than do those in rural regions.

Necessity for Remedial Work

Is it necessary to urge that in all of the school children of the country these health defects should be recognized, and that all of the defects which demand remedial attention should be promptly corrected? It is lamentably true that in only a small percentage of the entire school population are the defects studied and recognized, while in only a small fraction of these even, are the detrimental defects corrected in an effective manner.

The business of keeping the school children of this country in good physical repair is, as now conducted, a disgrace to the nation. The great majority of people (many of them generally intelligent) fail to appreciate the significance of these defects. This fact, however, does not lessen in any way the injury to the children of the neglected health defects.

The real danger to the children of the land, as a matter-of-fact, lies in the ignorance, irresponsibility of, and neglect by, the adults intrusted with, and supposed to be equal to the most important task of the adults of any species: namely, the care and training of the young.

The children of our country deserve as effective physical care as the live stock.

The children are entitled, even in war times, to as careful attention and cultivation as the crops.

Shall not the children, drafted by compulsory education into our schools, be assured of as skillful and satisfactory care as the soldiers in camp and trench?

Universal Health Training

If health and physical efficiency are then, so important for the country as a whole, all of the necessary forces, both governmental and voluntary, must be marshalled for the task of protecting and developing the physical fitness of the young.

The principle of universal training must, in a manner consonant with the spirit and methods of democracy, be interpreted and applied in the universal, compulsory health and physical care, and training of all the children of the nation. Moreover, a comprehensive program of health training must provide for the education of adults as well as of the children. The children will be the responsible adults of the next generation, but those now of adult age control largely the opportunities of the young in preparation of adult life."

WISCONSIN HEALTH CONDITIONS

"This National Asset—health—is at present the most in danger of all of our national resources."

HOLT.

The State Health Department, the Anti-Tuberculosis Association, the State Department of Public Instruction and the University have co-operated in Wisconsin to improve health standards. It goes without saying that much good has been accomplished, but no one realizes more keenly than do those within these agencies how futile are their efforts, until funds are increased, additional workers provided, and

effective legislation enacted. The state of Wisconsin in 1916 spent approximately \$230,912.00 for administrative and active conservation of fish, game, parks and forests. During the same period the state spent \$65,387.54 or about 28% of the first mentioned sum, in its department of health for the general administration and supervision of health in the state. It is obvious that the large amount of administrative work which belongs within a state department of health together with the general field work of sanitary inspection leaves no time for school surveys or inspection of school children.

In their bulletin of June, 1918, the State Board of Health prints the following article.

SCHOOL INSPECTION

"It is doubtless generally believed that country school children are healthier and more vigorous than the city children of school age."

In a recent report of the Indiana State Board of Health, Dr. J. N. Hurty, who is a pioneer in the field of rural hygiene, presents a very different viewpoint. He says:

"In one rural school of twenty-seven pupils, I found seven anemic emaciated children and five of these were actually starving. One little wizened girl had had one batter cake with molasses for breakfast, and in her dinner bucket for lunch was one soggy biscuit and one small apple. All of the twenty-seven pupils in this school needed medical attention. There was not a child that did not have two or more decayed teeth. Every child had suffered from one or more attacks of so-called 'colds' during the winter, and sixteen said they had had colds since school opened in the fall. There was not a clean tongue in the school; even the teacher wore a coat and she, too, had several decayed teeth. One child had a running ear; seven had defective sight; every child had dirty ears, dirty neck and dirty scalp, and of course we found diseased tonsils, enlarged neck glands, pigeon breasts and eruptions. One girl fifteen years old, still in the third grade, suffered with dementia praecox. The word hospital should have been over the door instead of District School No. 3."

No comprehensive survey of rural school conditions has ever been made in Wisconsin so it is impossible to determine if the Wisconsin conditions in this respect are as bad or worse than they are in Ohio. As an evidence of what we may expect to find concerning the health of our rural school children we quote the following extracts from an inspection made by one of the five deputy state health officers:

"In one rural school where 29 children were examined, 21 of them had enlarged tonsils, 4 cases of adenoids were found, 22 children with defective teeth and 5 children with defective vision." The deputy states in closing his report that at least 50 per cent of the children in this school are in need of medical or surgical treatment."

Public Health Service

This article reinforced by national findings leaves no room for argument. Rural Wisconsin is in dire need of rigorous health inspection and thorough training in right living. Only six counties of the state, Eau Claire, Chippewa, Lincoln, Langlade, Waupaca, Bayfield, have (1917-18) through their county boards, provided county health nurses to do this work.

Urban Wisconsin on the whole is but slightly in advance of the country districts. From the most reliable reports obtainable, there

were (spring of 1918) in Wisconsin one hundred seventy-two nurses employed in the cities and villages of the state. Eighty-nine of these were in Milwaukee. Of these Milwaukee nurses thirty-six were found to be employed by factories and other industrial enterprises. Their work is therefore primarily with the employees in their respective plants. The remaining fifty-three nurses in Milwaukee may be said to be doing public health work. This number furnishes one nurse for each 2400 school children. The generally accepted number of school children which one nurse can adequately serve varies greatly according to conditions. The maximum number is given as 3000. 1500 children is considered a minimum number for one nurse in city work. In rural communities, where distances must be considered, the area to be served rather than the number of pupils, should be taken as a standard.

Outside of Milwaukee, 37 of the nurses at work in the state are industrial nurses. They, therefore, do most of their work with those in the factories and with their families.

The remaining 46 nurses are serving a limited number of communities, but the greater part of the state, as will be readily seen from Figure 13 is entirely without organized health supervision.

What is true of the health of the children of the nation is indicative of Wisconsin conditions. At present this state is reported as spending only .0148 cents per capita and as ranking 31st of the 48 states in the expenditure of money for health. The state, however, is ranked sixteenth in efficiency in public health work.

Figure 14 shows in brief the present health service in Wisconsin. It is deplorably inadequate and this lack is costing untold sums. Organized health work can remedy these conditions.

A HEALTH PROGRAM FOR WISCONSIN

I. *Compulsory medical inspection of all children of school age.* New York, Massachusetts, Dist. of Columbia, New Jersey, North Carolina, Connecticut (in cities of over 10,000 only) already have such laws.

II. Full time *County and City public health nurses* in sufficient number to provide at least one for each 1500 children of school age.

III. Provision for correction of all harmful remediable defects by medical and surgical care and by dental and health clinics.

IV. Warm school lunches for all school children who do not eat warm lunches at home.

V. Adequate lighting, proper provision for moisture; sufficient heat and ventilation, sanitary drinking fountains and indoor flushing toilets for all school buildings.

VI. Playground equipment, organized play and rational physical education in all schools.

VII. Improved preparation of teachers for health work.

VIII. Vigorous, practical constant teaching of principles of right living together with inculcation of correct life habits in every school and community in Wisconsin.

TABLE 47.—Continued

County	District	Towns	Language	Approximate Population
Marquette	1, 2, 3, 4 Jt. 4	Crystal Lake	German	250
	5, 6, 7	Mecan	"	300
	8	"	Polish	100
	6, 7	Newton	German	80
Oconto	1, 2, Jt. 11	Gillett	German	264
	1 to 6	Underhill	"	550
	1, 2, 5, 6, 9	Howe	"	368
	1, 2, 3	Breed	"	125
	4	Lost River	"	70
	6	Chase	"	77
	1	Morgan	"	42
Ozaukee	.....	Belgium	German	1,500
	2-5, 7, 8, Jt. 10	Fredonia	"	800
	3, 8	Pt. Wash.	"	150
	4	Cedarburg	"	125
	4-5	Mequon	"	600
Pierce	All	Mortell	Norwegian	1,155
	"	Gilman	"	1,088
	8 and Jt. 10	Oak Grove	German	100
	Jt. 8	Trimbelle	"	90
Polk	Jt. 1	McKinley	Swedish & Norwegian	40
	6	Farmington	German	175
	1	Lincoln	Swedish & French	125
	Conl. 1	Apple River	Swedish	200
	3	Black Brook	Norwegian	200
	2	Eureka	Dane and Norwegian	100
	1	West Sweden	Swedish	175
	4	Lorraine	German and Dane	100
	3	Osceola	Swedish	120
	5	Farmington	German	150
Price	1-2	Effield	German	600
	4-5	Emery	Bohemian	300
	4	Hill	Finnish	500
	1, 2-5	"	Swedish and Finnish	900
	2, 3, 4, 8, 11	Lake	German	1,000
	1, 2, 3, 4	Ogema	Swed. Danish	600
	2, 3, 4, 6, 7	Brannan	"	600
Racine*	1, 2, 4	Worcester	Ger. Boh.	1,000
	1, 2, 4	Elk	Ger., Boh., Aust.	900
	8	Caledonia	Slav.	.
Rusk	19	"	"	.
	Jt. 4	Willard & Marshall	Polish	200
	Jt. 1	Strickland & Stubbs	"	125
	"	"	"	140
	5	"	"	115
St. Croix	2	Rusk	Bohemian	150
	1	Wilson	"	100
	3, 5, 2 & 4 Jt.	Somerset	French	300
Sauk	6—Jt. 2	"	German	150
	Jt. 1	Vil. Somerset	Fr. and Ger.	300
	6	Eau Gallie	Norwegian	75
	3	Cady	German	100
Troy	Jt. 3	Prairie du Sac	"	100
	1, 4, 6, 7, 8	Honey Creek	"	415
	Jt. 5 Jt. 10-3, 4	Franklin	"	350
	Jt. 6	Troy	"	60

TABLE 47.—Continued

County	District	Town	Language	Approximate population
Shawano	3-5.....	Angelica.....	German.....	486
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	Jt. 4.....	Seneca.....	".....	237
Sheboygan.....	4.....	Wash.....	".....	225
	1, 2, 3.....	Mosel.....	".....	1,000
	2, 3, 4, 5, 6, 7	Herman.....	".....	2,000
	All.....	Rhine.....	".....	2,000
	Jt. 20-10, 14, 6	Sheb. Falls.....	".....	1,000
	6, 2, 4.....	Wilson.....	".....	1,000
	4, 6, 7 & 5.	Sheb.....	".....	1,000
	6.....	Holland.....	".....	500
	Jt. 1.....	Russell.....	".....	300
	5.....	Lima.....	Dutch.....	300
Taylor.....	9.....	Holland.....	".....	300
		Roosevelt.....	Polish.....	
Trempealeau...	No. 5.....	Albion.....	Norwegian.....	
	Jt. 4.....			
	Jt. 1.....	Arcadia.....	Polish.....	
	3.....	".....	".....	
	10.....	".....	".....	
	Jt. 4.....	Preston.....	Norwegian.....	
	2.....	Dodge.....	Polish.....	*
	3.....			
	Jt. 6.....	Ettrick.....	Norwegian.....	
	2.....	Burnside.....	Polish.....	
Washburn.....	1.....	Chimney Rock.....	Norwegian.....	
	3.....	Pigeon.....	".....	
	2.....	Barronett.....	German.....	60
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	2, 3 & 8, 9			
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Waupaca.....	1, 2, 3.....	Kewaskum.....	".....	210
	2.....	Germantown.....	".....	80
	4.....	Richfield.....	".....	85
Waupaca.....	All.....	Harrison.....	Norwegian.....	400
	3, 4, 5.....	Iola.....	".....	300
	All.....	Scandinavia.....	".....	1,280
	".....	Caledonia.....	German.....	800
	".....	Dupont.....	".....	900
	".....	Helvetia.....	Norwegian & German	500
	t.....	Larrabee.....	German.....	1,200
	t.....	Bear Creek.....	".....	900
	t.....	Weyauwega.....	".....	300
	t.....	Lind.....	".....	500

*Not estimated

TABLE 47.—Continued

County	District	Town	Language	Approximate population
Waushara.....	.....	Bloomfield.....	German.....	800
	.....	Dakota.....	".....	500
	.....	Richford.....	".....	500
	.....	Saxeville.....	".....	400
	.....	Coloma.....	".....	300
	.....	Deerfield.....	".....	200
	.....	Poyssippi.....	".....	400
Winnebago.....	6.....	Wolf River.....	".....	75
	3.....	".....	".....	50
	Jt. 9.....	Winchester.....	".....	50

ILLITERACY

Illiteracy is another phase of the Americanization problem that should be receiving attention. According to the last Federal statistics there are 57,769 illiterates over 10 years of age in Wisconsin. The earning capacity of an illiterate is smaller than that of a literate. His industrial and civic contributions are of less consequence. In order that he may participate fully in the life of the community and render his best service it is essential that every illiterate capable of being taught be transferred to the literate class. The following tables show the distribution of illiterates in Wisconsin by counties and cities.

Though this is merely an estimation it is sufficiently accurate to indicate the foreignized character of our rural population, and to make it very evident that means should be found of substituting English for foreign languages in country districts. Teaching will be ineffective unless accompanied by association with American neighbors. In rural as well as in urban sections community gatherings provide one of the best means of Americanization. The Treasury Department has recently issued a pamphlet on War Savings Societies for adults which it is hoped will stimulate the formation of societies and provide a basis for community gatherings throughout the country.

ILLITERACY STATISTICS OF WISCONSIN

Persons 10 years old and over	
Total number illiterate.....	57,769
Per cent.....	3.2
Males of voting age	
Total number illiterate.....	27,038
Per cent.....	4.0
Persons 10 to 20 years inclusive	
Total number illiterate.....	3,798
Per cent.....	0.7

By Counties

(10 years old and over)

	No.	Per cent		No.	Per cent
Adams.....	149	2.3	Price.....	243	2.4
Ashland.....	905	5.5	Racine.....	1,247	2.7
Barron.....	550	2.5	Richland.....	441	3.0
Bayfield.....	352	3.0	Rock.....	824	1.8
Brown.....	2,867	7.0	Rusk.....	203	2.5
Buffalo.....	312	2.6	St. Croix.....	354	1.7
Burnett.....	225	3.3	Sauk.....	645	2.4
Calumet.....	108	0.8	Sawyer.....	420	9.0
Chippewa.....	1,247	5.0	Shawano.....	1,292	5.5
Clark.....	940	4.2	Sheboygan.....	1,052	2.4
Columbia.....	315	1.2	Taylor.....	302	3.1
Crawford.....	306	2.4	Trempealeau.....	584	3.3
Dane.....	1,093	1.8	Vernon.....	468	2.2
Dodge.....	913	2.4	Vilas.....	440	9.7
Door.....	706	5.0	Walworth.....	285	1.2
Douglas.....	1,084	2.8	Washburn.....	148	2.5
Dunn.....	686	3.5	Washington.....	255	1.3
Eau Claire.....	681	2.6	Waukesha.....	490	1.6
Florence.....	141	5.4	Waupaca.....	657	2.6
Fond du Lac.....	704	1.7	Waushara.....	308	2.1
Forest.....	195	4.0	Winnebago.....	1,222	2.4
Grant.....	569	1.8	Wood.....	634	2.8
Green.....	304	1.8			
Green Lake.....	619	5.1			
Iowa.....	299	1.7			
Iron.....	289	4.8			
Jackson.....	542	4.1			
Jefferson.....	233	0.8			
Juneau.....	590	3.8			
Kenosha.....	1,147	4.4			
Kewaunee.....	1,237	9.8			
La Crosse.....	1,156	3.2			
Lafayette.....	386	2.4			
Langlade.....	331	2.6			
Lincoln.....	253	1.8			
Manitowoc.....	913	2.6			
Marathon.....	1,165	2.9			
Marinette.....	1,598	6.3			
Marquette.....	370	4.4			
Milwaukee.....	12,255	3.5			
Monroe.....	463	2.0			
Oconto.....	1,435	7.7			
Oneida.....	366	4.3			
Outagamie.....	1,091	2.9			
Ozaukee.....	374	2.8			
Pepin.....	109	1.9			
Pierce.....	486	2.8			
Polk.....	477	3.0			
Portage.....	1,716	7.5			

<i>Cities</i>		
25,000 or over		
Green Bay.....	1,123	5.7
La Crosse.....	637	2.5
Madison.....	343	1.6
Milwaukee.....	10,765	3.6
Oshkosh.....	714	2.7
Racine.....	1,127	3.6
Sheboygan.....	672	3.2
Superior.....	850	2.7
10,000 to 25,000		
Appleton.....	219	1.3
Ashland.....	366	3.2
Beloit.....	220	1.5
Eau Claire.....	228	1.2
Fond du Lac.....	304	1.6
Janesville.....	202	1.5
Kenosha.....	979	4.6
Manitowoc.....	145	1.1
Marinette.....	596	4.1
Wausau.....	277	1.7

ILLITERACY STATISTICS OF WISCONSIN--Continued.

<i>Cities</i> 2,500 to 10,000		<i>Cities</i> 2,500 to 10,000	
	Number		Number
Antigo.....	82	Plymouth.....	46
Haraboo.....	79	Port Washington.....	160
Beaver Dam.....	272	Portage.....	29
Berlin.....	329	Prairie du Chien.....	84
Burlington.....	11	Reedsburg.....	47
Chippewa Falls.....	285	Rhineland.....	100
Columbus.....	45	Rice Lake.....	40
Cudahy.....	122	Richland Center.....	36
DePere.....	189	Ripon.....	79
Edgerton.....	27	Shawano.....	18
Fort Atkinson.....	30	South Milwaukee.....	73
Grand Rapids.....	123	Sparta.....	36
Hartford.....	7	Stanley.....	15
Hudson.....	14	Stevens Point.....	218
Jefferson.....	15	Stoughton.....	26
Kaukauna.....	44	Sturgeon Bay.....	55
Lake Geneva.....	16	Tomah.....	31
Marshfield.....	55	Tomahawk.....	49
Menasha.....	108	Two Rivers.....	53
Menomonie.....	215	Washburn.....	105
Merrill.....	98	Watertown.....	83
Mineral Point.....	33	Waukesha.....	145
Monroe.....	31	Waupaca.....	6
Neenah.....	46	Waupun.....	55
New London.....	76	Wauwatosa.....	21
Oconomowoc.....	62	West Allis.....	225
Oconto.....	163	Whitewater.....	41
Platteville.....	69		

A TASK FOR EVERY CITIZEN

The situation set forth in this chapter shows that Wisconsin has an Americanization problem of some magnitude. All forces should unite for the purpose of solving it. Help may be secured from local school people, from the U. S. Bureau of Education, from the State Department of Public Instruction and from the University. An Americanization department has been established in the University with Mr. Don G. Lescohier as director. It is his plan to utilize all the available agencies in the state in meeting this problem. Under his direction a collection of reference material on the subject is being assembled at the University and a study has been undertaken of methods employed in the teaching of English and citizenship to foreigners. Courses in these subjects are being organized for distribution. In addition it is planned to give at various centers in the state short courses of extensive training for those who desire to teach foreigners.

Wisconsin has made a beginning but much remains to be done and every community should consider itself self-conscripted for this great national task. We must no longer allow the foreign-born to be isolated elements but must make them integral parts of our civic and social life. They must be recognized not merely as industrial assets but must be helped to make their human and social contribution to American life. Only when the older residents of the country recognize the spiritual values of the new comers and help them to realize the high hopes that brought them to our shores—only then will they make of them Americans with one language and one loyalty.

CHAPTER XIII

HEALTH EDUCATION IN WISCONSIN

IMPORTANCE

"Instruction in health should be the most vital part of every child's education; and it necessarily must be given early while the child is at the receptive age."

L. EMMETT HOLT, M. D.

Health is the basis of efficiency. A few instances are well-known of persons physically weak who have made great contributions to the world's progress, but no one denies that with good health, these same people and countless others could have accomplished immeasurably more of worth to themselves and to the world. Knowing this as we do, and now brought face to face with appalling conditions of disability on the part of our young men as revealed by army statistics we still continue to neglect health instruction and the enforcement of health measures. We seem to be *unconscious of the great economic, political and social loss constantly accruing.*

Conditions in Wisconsin warrant most careful consideration which must be followed by active measures for improvement of existing conditions and provision for such adequate continuous health supervision that constant advancement in the physical standards of the people of Wisconsin will result. This is absolutely necessary if the state is to meet successfully the steadily increasing economic problems.

NATIONAL HEALTH CONDITIONS

"We cannot afford, while losing our boys in France to lose children at home."

SECRETARY OF WAR BAKER.

Food and Health

The extremely high cost of foods has had its direct effect on health conditions. During 1917 under the partial direction of Columbia University an investigation covering one hundred representative households showed that 76 of these were getting too little food. Malnutrition is not limited to the families of the poor. A county survey made in Renville Co., Minnesota before the war revealed the fact that 38% of the children of pre-school age in that county were underfed.

Malnutrition paves the way for tuberculosis which is the deadliest foe of the wage earner. From France, England, Belgium and Germany come reports of an alarming increase of tuberculosis because of food restrictions. The New York City Department of Health makes the following comment on the increase of tuberculosis in that city during 1917. "That this reflects in a measure the increased cost of food in this city during the past year is highly probable and it should cause us more than ever to give attention to the problem presented by malnutrition in school children."

Serious as is the food problem in its relation to the conservation of health it is only one of many matters which must be considered in an analysis of present conditions throughout the country.

War's Emphasis on Health Education

Dr. Thomas D. Wood, M. D. Teacher's College, Chairman of the Committee on Health Problems of the National Council of Education, in his pamphlet; *War's Emphasis on Health Education* gives the following conservative though startling account of the general health conditions which obtain in the United States at the present time.

"Our schools are wasting enormous sums in educating, or trying to educate, the children who are handicapped by ill health when the expenditure of much smaller amounts in a judicious health program would produce an extraordinary saving in economy and efficiency. A dollar spent promptly in a timely, constructive effort to conserve a child's health will be more fruitful for the child and for human society than will a thousand dollars applied twenty years later. The principle of national thrift finds its first and most vital application in the conservation and improvement of the health of the children.

At least one per cent—200,000 of the 22,000,000 school children in the United States are mentally defective.

Over one per cent—250,000 at least, of the children are handicapped by organic heart disease.

At least five per cent—1,000,000 children have now, or have had tuberculosis, a danger often to others as well as to themselves.

Five per cent—1,000,000 of them have defective hearing, which unrecognized, gives many the undeserved reputation of being mentally defective.

Twenty-five per cent—5,000,000 of these school children, have defective eyes. All but a small percentage of these can be corrected, and yet a majority of them have received no attention.

Fifteen to twenty-five per cent—3,000,000 to 5,000,000 of them are suffering from malnutrition, and poverty is not the most important cause of this serious barrier to healthy development.

From fifteen to twenty-five per cent—3,000,000 to 5,000,000 have adenoids, diseased tonsils, or other glandular defects.

From ten to twenty per cent—2,000,000 to 4,000,000 have weak foot-arches, weak spines, or other joint defects.

From fifty to seventy-five per cent—11,000,000 to 16,000,000 of our school children have defective teeth, and all defective teeth are more or less injurious to health. Some of these defective teeth are deadly menaces to their owners.

Seventy-five per cent—16,000,000 of the school children of the United States have physical defects which are potentially or actually detrimental to health. Most of these defects are remediable.

One of the appalling revelations of recent years is the conclusion based on unrefuted evidence *that the rural school children in this country are handicapped by more physical defects than the pupils in the city schools.* While several significant causes seem to be responsible for this astounding condition, the present physical inferiority of country children depends in part upon the fact that city children now receive more health care than do those in rural regions.

Necessity for Remedial Work

Is it necessary to urge that in all of the school children of the country these health defects should be recognized, and that all of the defects which demand remedial attention should be promptly corrected? It is lamentably true that in only a small percentage of the entire school population are the defects studied and recognized, while in only a small fraction of these even, are the detrimental defects corrected in an effective manner.

The business of keeping the school children of this country in good physical repair is, as now conducted, a disgrace to the nation. The great majority of people (many of them generally intelligent) fail to appreciate the significance of these defects. This fact, however, does not lessen in any way the injury to the children of the neglected health defects.

The real danger to the children of the land, as a matter-of-fact, lies in the ignorance, irresponsibility of, and neglect by, the adults intrusted with, and supposed to be equal to the most important task of the adults of any species: namely, the care and training of the young.

The children of our country deserve as effective physical care as the live stock.

The children are entitled, even in war times, to as careful attention and cultivation as the crops.

Shall not the children, drafted by compulsory education into our schools, be assured of as skillful and satisfactory care as the soldiers in camp and trench?

Universal Health Training

If health and physical efficiency are then, so important for the country as a whole, all of the necessary forces, both governmental and voluntary, must be marshalled for the task of protecting and developing the physical fitness of the young.

The principle of universal training must, in a manner consonant with the spirit and methods of democracy, be interpreted and applied in the universal, compulsory health and physical care, and training of all the children of the nation. Moreover, a comprehensive program of health training must provide for the education of adults as well as of the children. The children will be the responsible adults of the next generation, but those now of adult age control largely the opportunities of the young in preparation of adult life."

WISCONSIN HEALTH CONDITIONS

"This National Asset—health—is at present the most in danger of all of our national resources."

HOLT.

The State Health Department, the Anti-Tuberculosis Association, the State Department of Public Instruction and the University have co-operated in Wisconsin to improve health standards. It goes without saying that much good has been accomplished, but no one realizes more keenly than do those within these agencies how futile are their efforts, until *funds are increased, additional workers provided, and*

effective legislation enacted. The state of Wisconsin in 1916 spent approximately \$230,912.00 for administrative and active conservation of fish, game, parks and forests. During the same period the state spent \$65,387.54 or about 28% of the first mentioned sum, in its department of health for the general administration and supervision of health in the state. It is obvious that the large amount of administrative work which belongs within a state department of health together with the general field work of sanitary inspection leaves no time for school surveys or inspection of school children.

In their bulletin of June, 1918, the State Board of Health prints the following article.

SCHOOL INSPECTION

"It is doubtless generally believed that country school children are healthier and more vigorous than the city children of school age."

In a recent report of the Indiana State Board of Health, Dr. J. N. Hurty, who is a pioneer in the field of rural hygiene, presents a very different viewpoint. He says:

"In one rural school of twenty-seven pupils, I found seven anemic emaciated children and five of these were actually starving. One little wizened girl had had one batter cake with molasses for breakfast, and in her dinner bucket for lunch was one soggy biscuit and one small apple. All of the twenty-seven pupils in this school needed medical attention. There was not a child that did not have two or more decayed teeth. Every child had suffered from one or more attacks of so-called 'colds' during the winter, and sixteen said they had had colds since school opened in the fall. There was not a clean tongue in the school; even the teacher wore a coat and she, too, had several decayed teeth. One child had a running ear; seven had defective sight; every child had dirty ears, dirty neck and dirty scalp, and of course we found diseased tonsils, enlarged neck glands, pigeon breasts and eruptions. One girl fifteen years old, still in the third grade, suffered with dementia praecox. The word hospital should have been over the door instead of District School No. 3."

No comprehensive survey of rural school conditions has ever been made in Wisconsin so it is impossible to determine if the Wisconsin conditions in this respect are as bad or worse than they are in Ohio. As an evidence of what we may expect to find concerning the health of our rural school children we quote the following extracts from an inspection made by one of the five deputy state health officers:

"In one rural school where 29 children were examined, 21 of them had enlarged tonsils, 4 cases of adenoids were found, 22 children with defective teeth and 5 children with defective vision." The deputy states in closing his report that at least 50 per cent of the children in this school are in need of medical or surgical treatment."

Public Health Service

This article reinforced by national findings leaves no room for argument. Rural Wisconsin is in dire need of rigorous health inspection and thorough training in right living. Only six counties of the state, Eau Claire, Chippewa, Lincoln, Langlade, Waupaca, Bayfield, have (1917-18) through their county boards, provided county health nurses to do this work.

Urban Wisconsin on the whole is but slightly in advance of the country districts. From the most reliable reports obtainable, there

were (spring of 1918) in Wisconsin one hundred seventy-two nurses employed in the cities and villages of the state. Eighty-nine of these were in Milwaukee. Of these Milwaukee nurses thirty-six were found to be employed by factories and other industrial enterprises. Their work is therefore primarily with the employees in their respective plants. The remaining fifty-three nurses in Milwaukee may be said to be doing public health work. This number furnishes one nurse for each 2400 school children. The generally accepted number of school children which one nurse can adequately serve varies greatly according to conditions. The maximum number is given as 3000. 1500 children is considered a minimum number for one nurse in city work. In rural communities, where distances must be considered, the area to be served rather than the number of pupils, should be taken as a standard.

Outside of Milwaukee, 37 of the nurses at work in the state are industrial nurses. They, therefore, do most of their work with those in the factories and with their families.

The remaining 46 nurses are serving a limited number of communities, but the greater part of the state, as will be readily seen from Figure 13 is entirely without organized health supervision.

What is true of the health of the children of the nation is indicative of Wisconsin conditions. At present this state is reported as spending only .0148 cents per capita and as ranking 31st of the 48 states in the expenditure of money for health. The state, however, is ranked sixteenth in efficiency in public health work.

Figure 14 shows in brief the present health service in Wisconsin. It is deplorably inadequate and this lack is costing untold sums. Organized health work can remedy these conditions.

A HEALTH PROGRAM FOR WISCONSIN

I. *Compulsory medical inspection of all children of school age.* New York, Massachusetts, Dist. of Columbia, New Jersey, North Carolina, Connecticut (in cities of over 10,000 only) already have such laws.

II. Full time *County and City public health nurses* in sufficient number to provide at least one for each 1500 children of school age.

III. Provision for correction of all harmful remediable defects by medical and surgical care and by dental and health clinics.

IV. Warm school lunches for all school children who do not eat warm lunches at home.

V. Adequate lighting, proper provision for moisture; sufficient heat and ventilation, sanitary drinking fountains and indoor flushing toilets for all school buildings.

VI. Playground equipment, organized play and rational physical education in all schools.

VII. Improved preparation of teachers for health work.

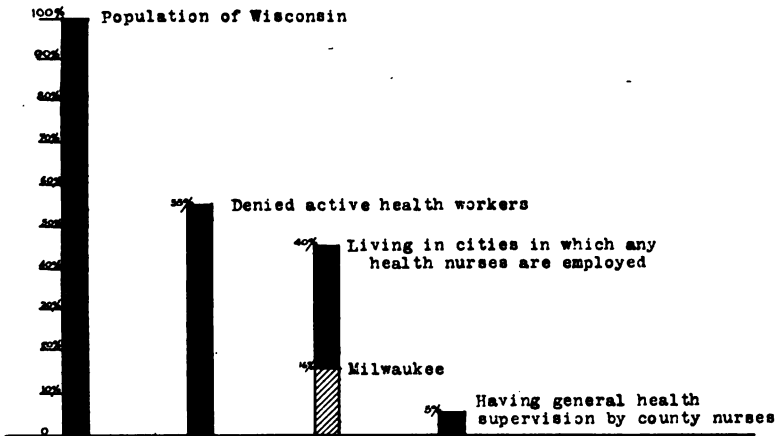
VIII. Vigorous, practical constant teaching of principles of right living together with inculcation of correct life habits in every school and community in Wisconsin.

BY WHOM EMPLOYED

H- PUBLIC HEALTH DEPT
 C- COUNTY
 S- SCHOOL BOARD
 F- INDUSTRIAL PLANT
 O- CIVIC ORGANIZATION, WOMEN CLUB ETC

FIGURE 13.—*By Whom Nurses Are Employed in Wisconsin*

Outside of Milwaukee:		
Civic organizations		18
Industrial Plants		37
County		6
Public Health Department.....		15
School Boards		13
Milwaukee:		
Civic and charitable organizations.....		18
Industrial		36
Public Health Department.....		18
School Board		10

FIGURE 14.—*Health Protection in Wisconsin 1917-1918*

Total population of Wisconsin.....	2,333,860
Total number of nurses.....	178
Population of Milwaukee.....	373,857
Number of nurses.....	89

16% of the population receiving 50% of the health service .

Population of cities and counties outside of Milwaukee having some health supervision.....	675,808
Number of nurses.....	89
Population of Wisconsin entirely without health nurses.....	1,284,195
Public Health nurses needed to serve Wisconsin people (based on conservative estimates).....	500

APPENDIX

TABLE I.—*School Census*

	1916-17		1917-18	
	Number	Per cent	Number	Per cent
Total 4-20 years of age	803,071	.....	804,212	.....
Total 7-14 years of age	360,554	44.9	363,455	.45
Total 14-16 years of age	94,852	11.8	96,033	.12
Counties				
4-20.....	467,586	58.	469,231	58.
7-14.....	215,581	26.8	215,334	26.
14-16.....	57,166	7.	57,404	7.
Cities				
4-20.....	335,485	41.7	334,981	41.6
7-14.....	144,973	18.	148,121	18.
14-16.....	37,686	4.6	38,629	4.8

TABLE 2.—*Relation of Enrollment to Census.*

	1916-17		1917-18	
	Number	Per cent	Number	Per cent
Census.....	803,071	100.	804,212	100.
Enrollment				
1. All schools.....	539,824	67.2	540,217	67.
2. All public schools.....	463,098	57.7	458,950	57.
3. Day schools including parochial.....	533,810	66.4	533,259	66.3
4. Public day schools.....	456,584	57.0	451,992	56.3
5. Parochial schools*.....	76,726	9.5	81,267	10.

* All parochial statistics incomplete.

TABLE 3.—*Relation of Entire City Enrollment to City Census.*

	1916-17		1917-18	
	Number	Per cent	Number	Per cent
Census.....	335,485	.....	334,981	.....
Enrollment				
All schools.....	249,215	74.4	248,510	74.4
Day.....	183,054	54.8	182,119	54.6
(Including 491 Deaf and Blind).....			(503)	
Evening.....	5,561	1.6	6,039	1.8
Industrial.....	953	.2	919	.2
Parochial.....	59,647	17.8	59,433	17.8

TABLE 4.—*Relation of Entire County Enrollment to County Census.*

	1916-17		1917-18	
	Number	Per cent	Number	Per cent
Census.....	467,586	.....	469,231	.....
Enrollment				
All schools	290,609	62.2	291,707	62.2
Public	278,530	58.6	269,873	57.6
Parochial.....	17,079	3.6	21,834	4.6

TABLE 5.—*School Enrollment.*

	1916-1917		1917-18	
	Number	Per cent	Number	Per cent.
Total.....	539,824	100.	540,217	100.
Total Public School.....	463,098	85.8	458,950	84.8
Public Day.....	456,584	84.5	451,992	83.5
*Public Evening.....	5,561	1.	6,039	1.1
†Public Industrial.....	953	0.16	919	0.16
Parochial.....	76,726	14.	81,267	15.

*Ashland, Milwaukee and Watertown report this total. All other cities report such schools as under Board of Industrial Education.

†This report for Milwaukee only.

TABLE 6.—*Distribution of Total School Enrollment.*

	1916 17		1917-18	
	Number	Per cent	Number	Per cent
Total.....	463,098	100.	458,950	100.
Counties.....	273,530	59	269,873	59.1
Rural schools	160,135	34.6	158,478	34.5
State graded schools.....	50,036	10.8	48,282	10.5
Grades below high school	43,376	9.3	43,195	9.8
Free high schools	19,933	4.3	19,918	4.3
(Parochial schools).....	(17,079)	.....	(21,834)	.....
Cities.....	189,568	40.9	189,077	41.
Day kindergarten.....	21,655	4.6	21,462	4.6
Day grades.....	129,826	28.	128,684	28.
Day high schools.....	31,082	6.7	31,470	6.8
Evening schools.....	5,561	1.2	6,039	1.3
Schools for industries.....	953	.2	919	.2
Schools for deaf and blind	491	.1	503	.1
(Parochial schools).....	(59,647)	.....	(59,433)	.....

TABLE 7.—*Distribution of Enrollment in Public Day Schools.*

	1916-17		1917-18	
	Number	Per cent	Number	Per cent
Total.....	456,584	100.	451,992	100.
Counties.....	273,530	62.	269,873	59.8
Rural schools.....	160,135	36.7	158,478	35.
State graded schools.....	50,036	11.4	48,281	11.
Grades below high school.....	43,376	10.	43,195	9.5
Free high schools.....	19,983	4.	19,918	4.4
Cities.....	183,054	40.	182,119	40.4
Kindergarten.....	21,655	4.7	21,462	5.5
Grades.....	129,826	28.5	128,684	28.
High schools.....	31,082	6.5	31,470	7.
Schools for deaf and blind.....	491	.1	503	.1

TABLE 8.—*County and City Distribution of Enrollment in Public Day Schools.*

	1916-17		1917-18	
	Number	Per cent	Number	Per cent
Counties.....				
Total.....	273,530	100.	269,873	100.
Rural.....	160,135	58.6	158,478	59.
State Graded.....	50,036	18.5	48,282	18.
Grades Below High School.....	43,376	15.9	43,195	16.
High School.....	19,983	7.	19,918	7.
Cities.....				
Total.....	183,054	103.	182,119	100.
Kindergarten.....	21,655	11.8	21,462	11.8
Grades.....	129,826	71.	128,684	70.7
Deaf & Blind.....	491	.2	503	.2
High School.....	31,082	17.	31,470	17.3

TABLE 9.—*Average Daily Attendance.*

	1916-17	1917-18
Average Daily Attendance.....	367,092	356,829
Average Length of School Year.....	181	177.6

TABLE 10.—*Enrollment and Average Attendance, 1917-18.*

	Total	Rural	State Graded	Grades Below High School	Co. High Schools	City Grades and Kin'g'tn.	City High School.
Enrollment.....	451,902	158,478	48,282	43,195	19,918	150,649	31,470
Attendance.....	356,829	111,949	38,052	36,955	17,701	125,228	26,942
Per cent.....	79.	70.6	78.8	85.5	88.5	83.1	85.7

TABLE 11.—*Distribution of Attendance*

1916-17	Total	160 days or more	120 to 159 days	119 days or less
Rural.....	160,135	24,152	78,222	57,587
State graded.....	50,036	24,812	15,835	9,007
Grades below high.....	63,359	41,540	13,723	7,072
High school.....				
City kindergarten.....	21,655	126,715	47,227	
City grades.....	129,826			
City high schools.....	31,082			
1917-18				
Rural.....	158,478	25,453	76,046	56,980
State graded.....	48,282	22,408	16,875	8,914
Grades below high school.....	43,195	39,454	16,043	7,695
High school.....	19,918			
City kindergarten.....	21,462	123,177	55,987	
City grades.....	128,684			
City high schools.....	31,470			

TABLE 12.—*Enrollment by Grades.*

	Rural	State Graded	Grades below High School	City Grades
1916-17				
Total.....	160,135	50,036	43,754	151,481
Kindergarten.....		1,744	3,175	21,607
Ungraded.....				2,251
1st grade.....	79,895	10,151	7,173	21,393
2nd grade.....		6,141	5,195	17,756
3rd grade.....		6,009	5,203	17,283
4th grade.....		5,711	5,001	16,558
5th grade.....	51,452	5,437	4,927	15,419
6th grade.....		5,002	4,673	14,303
7th grade.....		4,320	4,312	12,948
8th grade.....	28,788	3,964	4,095	11,983
9th grade.....		989		
10th grade.....		466		
11th grade.....		92		
1917-18				
Total.....	158,478	48,282	43,195	150,037
Kindergarten.....	2,036	1,612	3,147	21,441
Ungraded.....	134	17		1,467
1st grade.....	34,755	9,604	6,708	21,251
2nd grade.....	21,743	5,920	5,124	17,463
3rd grade.....	20,625	5,848	5,125	16,800
4th grade.....	18,818	5,676	5,125	16,677
5th grade.....	17,779	5,376	4,797	15,889
6th grade.....	15,445	4,673	4,695	14,429
7th grade.....	13,153	4,235	4,355	13,002
8th grade.....	13,990	3,861	4,119	11,618
9th grade.....		1,008		
10th grade.....		376		
11th grade.....		76		

TABLE 13.—*Percentage of Enrollment by Grades.*

	Total	Per cent	Co. Grades	Per cent	City Grades	Per cent
Total.....	399,992	100.	249,955	100.	150,037	100.
Kindergarten.....	28,236	7.	6,795	2.7	21,441	14.3
Ungraded.....	1,618	.4	151	.06	1,467	.97
1st grade.....	72,318	18.1	51,067	20.5	21,251	14.2
2nd grade.....	50,250	12.6	32,797	13.2	17,453	11.6
3rd grade.....	48,898	12.1	31,598	12.7	16,800	11.2
4th grade.....	46,296	11.6	29,619	11.9	16,677	11.1
5th grade.....	43,841	11.	27,952	11.2	15,889	10.6
6th grade.....	39,242	9.9	24,813	9.6	14,429	9.6
7th grade.....	34,745	8.7	21,743	8.7	13,002	8.6
8th grade.....	33,588	8.4	21,960	8.8	11,618	7.7
9th grade.....	1,008	.2	1,008	.4	.....	.....
10th grade.....	376	.09	376	.15	.....	.....
11th grade.....	76	.02	76	.03	.....	.....

TABLE 14.—*High School Enrollment and Attendance.*

	1916-17		1917-18	
	Number	Per cent	Number	Per cent
Total enrollment high schools.....	50,521	100	*49,411	100
a. Freshman year.....	17,878	35.0	18,686	37.5
b. Sophomore year.....	12,929	25.6	11,427	23.
c. Junior year.....	10,366	20.5	10,174	20.5
d. Senior year.....	8,821	17.5	8,572	17.8
e. Specials.....	527	1.4	552	1.2
Number of graduates.....	7,813	.....	7,769	.....
Boys.....	3,256	.....	3,084	.....
Girls.....	4,557	.....	4,685	.....
Average daily attendance.....	44,693	.....	44,652	.....
Number entering high school for first time.....	17,246	.....	17,801	.....
a. From local city elementary grades.....	10,894	.....	11,076	.....
b. From elementary grades other cities.....	435	.....	573	.....
c. From state graded schools.....	1,107	.....	1,117	.....
d. From rural schools not state graded.....	3,099	.....	3,308	.....

*1918 figures do not include transfers to other public schools.

TABLE 15.—*Enrollment and Promotion by Grades—Cities.*

	Total Enrolled	Dropped	Enrolled at end of year	Failed	Promoted	Per cent Promoted
1916-17						
Total.....	151,619*	13,567	138,052*	16,472	120,768	79.9
Kindergarten.....	21,657	2,638	19,019	5,693	13,236	69.6
Ungraded.....	2,251	419	1,832	786	1,027	45.6
1st grade.....	21,413	1,797	19,619	2,623	16,891	78.9
2nd grade.....	17,776	1,219	16,557	1,116	15,352	86.6
3rd grade.....	17,311	1,064	16,247	1,069	15,066	87.1
4th grade.....	16,558	1,024	15,534	1,282	14,185	86.
5th grade.....	15,419	1,142	14,277	1,196	13,023	84.6
6th grade.....	14,303	1,278	13,025	980	12,001	83.9
7th grade.....	12,648	1,271	11,677	1,026	10,514	81.5
8th grade.....	11,983	1,715	10,268	696	9,473	79.6
1917-18						
Total.....	150,037†	11,352	138,685†	16,806	121,332	80.9
Kindergarten.....	21,441	2,408	19,013	6,118	12,653	69.2
Ungraded.....	1,467	269	1,198	659	539	36.9
1st grade.....	21,251	1,507	19,797	2,795	16,938	79.9
2nd grade.....	17,463	917	16,537	1,195	15,378	88.3
3rd grade.....	16,800	822	15,973	1,096	14,831	88.3
4th grade.....	16,677	834	15,849	1,237	14,516	87.4
5th grade.....	15,889	942	14,947	1,210	13,667	86.5
6th grade.....	14,429	1,095	13,330	954	12,361	75.9
7th grade.....	13,002	1,165	11,862	985	10,858	83.5
8th grade.....	11,618	1,398	10,132	557	9,591	82.7

*Discrepancy between these figures and enrollment total in table 7 due to inclusion of transfers in this report in several instances.

† Omissions included in table 7 due to incomplete report chiefly of pupils excused for war work.

TABLE 16.—*Number and Distribution of Professional Workers in Schools.*

	1916-17	1917-18
Total number professional workers in the state	16,768	16,910
Counties		
No. professional workers	10,963	11,076
No. superintendents	73	73
Men	58	57
Women	15	16
No. of supervisors	92	92
No. of teachers	10,798	10,911
Rural schools	6,619	6,648
Men	338	261
Women	6,231	6,387
State graded schools	1,708	1,670
Men	246	195
Women	1,462	1,475
Grades below high schools	1,277	1,332
Men	24	23
Women	1,253	1,309
Free high schools	1,194	1,261
Men	441	415
Women	753	846
(Private and parochial schools)	(10,798)	(944)
Men	1,099	254
Women	9,699	690
Cities		
Total professional workers in school* (Superintendents, principals, supervisors, and teachers)	5,805	5,834
Men	795	741
Women	5,010	5,093
No. superintendents	80	80
No. principals	84	86
No. of these acting as both superintendent and prin- cipal	52	50
No. assistant superintendents	9	7
Elementary teachers	4,333	4,825
High school	1,472	1,549
Parochial	(1,383)	(1,385)

*An accurate numerical classification of supervisors, teachers of special subjects and regular class room teachers cannot be made, since all these capacities are often combined in one person. Thus a given teacher is often reported under three different classifications.

TABLE 17.—*Teachers' Salaries.*

1916-17	Total	Rural	State graded	Grades below H. S.	County H. S.	City grades	City H. S.
Total.....	16,289	6,619	1,708	1,277	1,194	4,162	*1,329
— 39	81			1	4	72	4
40-49	4,760	4,241	229	119	1	168	4
50-59	4,638	2,012	722	772	22	1,136	4
60-69	2,578	315	407	321	250	1,239	46
70-79	1,467	43	172	45	325	686	196
80-89	1,193	7	93	15	178	630	270
90-99	583		47	2	89	178	267
100+	989	1	38	2	325	83	540
Median.....	57	48	58	57	79	66	91
1917-18							
Total.....	16,464	6,648	1,670	1,332	1,261	4,192	*1,361
— 39	76					69	10
40-49	2,996	2,663	78	32	3	216	4
50-59	5,620	3,216	639	604	6	1,148	7
60-69	3,175	679	499	569	183	1,166	79
70-79	1,254	75	218	100	383	370	108
80-89	1,531	10	123	11	209	870	308
90-99	588	4	65	8	119	152	240
100+	1,224	1	48	8	358	204	605
Median....	59	52	63	61	82	66	97

*City figures include teachers only.

TABLE 18.*—*Educational Training of Teachers—City Schools*

	1916-17		1917-18	
	Elem. schools	High schools	Elem. schools	High schools
Elighth grade only	14	13	10	15
Attended high school.....	34	9	21	4
Grad. of high school	296	13	262	15
Grad. of high school T. T. C.....	32	2	14	1
Attended C. T. S.	2		10	
Grad. of C. T. S.	32		18	
Attended N. S. elem. or R. C. or first three years of five year course	57	1	120	12
Grad. N. S., E. or R. C.	263	3	227	3
Attended N. S. high school grad. course	280	16	231	17
Grad. of N. S. full course.....	2,716	197	2,767	214
Attended U. or college.....	185	80	232	41
Grad. U. or college.....	168	928	135	961
Attended special school	33	14	43	46
Grad. special school.....	211	196	181	208
.....			13	11
.....			1	1
Total number of teachers.....	4,324	1,472	4,287	1,549

* This table includes principals and superintendents.

TABLE 19.—*Educational Training of Teachers—County Schools*

	1916-17				1917-18			
	Rural school	State graded school	Grades below H. S.	High school	Rural school	State graded school	Grades below H. S.	High school
Eighth grade only.....	77	9	5	.....	61	8	3	.....
Attended high school...	317	45	20	.....	265	40	2	.....
Grad. of high school...	1,756	277	132	2	1,244	207	110	.....
Grad. of high school T. C.....	602	76	21	.....	876	97	39	.....
Attended C. T. S.....	299	35	26	.....	319	38	15	.....
Grad of C. T. S.....	1,916	293	58	1	2,019	296	82	.....
Attended N. S. elem. or R. C. or first three years of five year course.....	524	95	45	1	603	104	57	2
Grad. N. S. E. or R. C.....	450	52	57	5	558	67	50	11
Attended N. S. high school grad. course.....	286	166	158	14	343	171	177	70
Grad. of N. S. full course.....	163	559	653	513	216	539	469	463
Attended U. or college.....	55	45	45	120	61	51	63	164
Grad. U. or college.....	22	22	19	409	15	24	23	406
Attended special school.....	51	7	19	50	25	17	17	50
Grad. special school.....	31	12	14	75	15	11	23	88
Others.....	70	15	5	4	23	.....	2	7
Total No. teachers.....	6,619	1,708	1,277	1,194	6,648	1,670	1,332	1,261

TABLE 20.—*Distribution of All Teachers on Basis of Training*

	Co. Elem.	Co. H. S.	Co. Total	Per cent	City Elem.	City H. S.	City Total	Per cent	Total	Per cent
Eighth grade only.....	72	.....	72	.6	10	15	25	.4	97	.6
Attended high school.....	307	.....	307	2.9	21	4	25	.4	332	1.9
Grad. of high school.....	1,561	.....	1,561	14.4	262	15	277	4.7	1,838	11.
Grad. of high school T. T. C.....	1,012	.....	1,012	9.	14	1	15	.25	1,027	6.
Attended C. T. S.....	373	.....	373	3.43	10	0	10	.17	383	2.9
Grad. of C. S.....	2,396	.....	2,396	22.	18	0	18	.39	2,414	14.4
Attended N. S. elem. or R. C. or first three years of five year course.....	764	2	766	7.3	120	12	132	2.7	898	5.3
Grad. N. S. or R. C.....	675	11	686	6.3	227	3	230	3.9	916	5.5
Attended E. S. high school grad. course.....	691	70	761	7.3	231	17	248	4.2	1,009	6.
Grad of N. S. full course.....	1,424	463	1,887	17.	2,767	214	2,981	51.	4,868	29.
Attended U. or college.....	175	164	339	3.	232	41	273	4.6	612	3.6
Grad. U. or college.....	62	406	468	4.3	135	961	1,096	18.8	1,564	9.3
Attended special school.....	59	50	109	1.	43	46	89	1.5	198	1.1
Grad. special school.....	49	88	137	1.2	181	208	389	6.6	526	3.1
.....	30	7	37	.3	14	12	26	.4	63	.3
Total number of teachers.....	9,650	1,261	10,911	100.	4,285	1,549	5,834	100.	16,745	100.

TABLE 21.—*Certificates Held by Teachers of the State.*

Type	County		City	
	1916-17	1917-18	1916-17	1917-18
Total number of teachers.....	10,798	10,911	5,761	5,834
1st grade.....	1,134	1,112	382	386
2nd grade.....	3,458	2,975	175	168
3rd grade.....	1,072	1,048	89	41
Special limited.....	340	464		
T. T. School certificate.....	2,102	2,680		
On examination.....	332	327	51	75
Normal school.....	1,888	1,987	3,300	3,434
University or college.....	472	468	1,099	1,074
Special.....			715	656

TABLE 22.—*Teaching Service in Locality.*

	Total	Rural	State graded	Grades below high schools	Free high schools	City
1916-17						
Total.....	16,596	6,619	1,708	1,277	1,194	5,798
1 year or less.....	6,961	3,908	825	517	510	1,201
2 years.....	3,631	1,679	455	306	314	877
3 years.....	1,805	618	202	169	162	654
4 years.....	947	228	85	87	89	458
5 years.....	578	87	41	39	37	369
6 years and over.....	2,679	99	100	159	82	2,239
Median no. years.....	2.3	1.8	2.	2.4	2.2	4.3
1917-18						
Total.....	16,745	6,648	1,670	1,332	1,261	5,834
1 year or less.....	7,516	4,108	896	552	625	1,335
2 years.....	3,188	1,463	363	300	292	770
3 years.....	1,627	608	195	167	131	526
4 years.....	989	272	95	103	72	447
5 years.....	634	93	44	55	45	397
6 years and over.....	2,791	104	77	155	96	2,359
Median no. years.....	1.1	.8	1.	1.4	1.+	2.6

TABLE 23.—*Total Teaching Service.*

1916-17	Total	Rural	State graded	Grades below high school	Free high schools	City
Total.....	16,586	6,619	1,708	1,277	1,194	5,798
1 year or less.....	2,682	1,525	206	232	226	493
2 years.....	3,361	1,214	209	219	224	495
3 years.....	2,222	1,178	230	160	159	465
4 years.....	1,736	800	217	121	123	475
5 years.....	1,300	517	176	102	99	406
6 years and over.....	6,295	1,385	670	443	363	3,434
Median no. years.....	4.6	3.5	4.5	4.4	3.9	6.
1917-18						
Total.....	16,745	6,648	1,670	1,332	1,261	5,834
1 year or less.....	3,123	1,830	260	236	288	509
2 years.....	2,222	1,173	201	214	180	454
3 years.....	1,834	861	195	173	151	454
4 years.....	1,705	835	182	141	117	430
5 years.....	1,386	552	189	113	103	429
6 years and over.....	6,475	1,397	643	455	422	3,558
Median no. years.....	4.7	3.4	4.	4.	4.1	6.2

TABLE 24.—*Average Number of Pupils per Teacher*

	Enrollment	Teachers	Average
1916-17			
County			
Rural.....	160,135	6,619	24
State graded.....	50,036	1,708	29
Grades below H. S.....	43,376	1,277	34
H. S.....	19,983	1,194	17
City			
Kindergarten.....	21,655	469	46
Grades.....	129,826	3,693	35
H. S.....	310,082	1,329	23
1917-18			
County			
Rural.....	158,478	6,648	24
State graded.....	48,282	1,670	29
Grades below H. S.....	43,195	1,332	33
H. S.....	1,261	16	16
City			
Kindergarten.....	21,462	478	45
Grades.....	128,684	3,807	34
H. S.....	31,470	1,549	20

TABLE 25.—*Rural Schools Classified According to Number of Children Enrolled, 1917-1918.*

Schools Enrolling.

5 children or fewer	104	41 to 45 children.....	296
6 to 10 children.....	532	46 to 50 children.....	184
11 to 15 children.....	947	51 to 55 children.....	94
16 to 20 children.....	1,216	56 to 59 children.....	52
21 to 25 children.....	1,135	60 children or over.....	60
26 to 30 children.....	928		
31 to 35 children.....	643	Total	6,648
36 to 40 children.....	457		

TABLE 26.—*Compulsory Age Enrollment and Summary of Attendance*

	1916-17	1917-18
Total enrollment for counties.....	456,584	451,992
No. of children who have attended 160 days or more.....	90,504	87,315
No. who have attended 120 to 159 days.....	107,780	108,936
No. who have attended 119 days or less.....	73,666	73,589
No. of children aged 7 to 14 years reported in county census.....	215,581	215,334
No. of these who have attended public schools.....		202,441
No. of these who have attended 120 days in towns and villages and 160 days in cities.....		119,492
No. of children residing more than two miles from school, but not more than three miles.....		22,600
No. of children residing more than 3 miles from school.....		4,337
No. nonresident pupils.....	14,161	13,953
Rural.....	6,534	5,926
State graded.....	1,923	1,907
H. S. and grades below.....	5,704	6,100
No. of children for which districts paid tuition.....		3,364
Tuition ranges from 50c to \$1.75 per month in rural schools to \$4.00 per month in H. S.		
Total enrollment in cities.....	183,054	182,119
No. children attending 160 days and over.....	126,715	124,921
No. children who have not attended 160 days.....	47,227	56,425
No. of truant officers.....	82	83
No. of pupils leaving before the end of the school year on account of		
a. Obtaining labor permits.....	3,713	3,193
b. Other causes.....	10,846	12,495
No. nonresident tuition pupils enrolled.....	4,942	4,696
All high schools		
No. nonresident pupils.....	11,368	11,715
Amount tuition for nonresidents.....	\$723,821.00	\$374,198.00

TABLE 27.—*Foreign Language Taught in Grades.*

	1915	1917	1918
Counties—No. of districts teaching:			
German.....	183	162	136
Scandinavian	22	10	14
Polish.....	10	4	10
Other language.....	3	4	8
Cities—No. teaching:			
German	7	7	4
Other language	2	3	4

TABLE 28.—*Transportation—Counties.*

	1917-18
No. of children for whom districts have paid tuition to other districts.....	3,364
No. of schools closed; children attending in other districts.....	109
No. of schools closed during the past year and children transported to other schools.....	94
No. of wagons used	111
No. of children transported.....	814
No. of districts that have furnished transportation to children to their own school.....	222
No. of children transported.....	3,244
No. of these living more than 2 miles from the school.	2,671
No. children aged 7 to 14 living outside the 2 mile limit.....	4,058
No. of those who attended any school.....	3,312

TABLE 29.—*Length of School Year.*

	1916-17	1917-18
Counties		
No. districts maintaining school from		
8 to 8½ months.....	4,127	3,713
8½ to 9 months.....	1,309	1,391
9 to 9½ months.....	2,209	2,278
9½ to 10 months.....	140	117
10+ months.....	49	48
Number of days schools have been closed on account of contagious disease.....	5,868½	7,271½
Cities		
No. maintaining school for		
9 months.....	39	39
9½ months.....	4	5
9½ months.....	23	22
9½ months.....	1	1
10 months.....	12	13
Number days a whole school has been closed on account of contagious disease	68½	.....
No. cities holding Summer session.....	14	7
No. pupils enrolled during Summer session.....	4,373	4,503

TABLE 30.—*Free Text Books.*

	1916-17	1917-18
Counties:		
Number of districts furnishing free text books	3,016	3,249
Number of districts renting text books.....	184	125
Cities:		
No. furnishing free texts in grades.....	41	42
No. furnishing free texts in high schools.....	33	33
No. selling texts at cost	24	23
No. renting texts.....	14	19

TABLE 31.—*School Buildings—Old and New.*

	1916-17	1917-18
Counties		
Total number of school districts.....	7,195	7,203
Number of public school buildings.....	7,679	7,719
Rural schools.....	6,705	6,731
State graded schools	623	610
Grades below high school (separate buildings).....	93	94
High school and grades combined.....	220	240
High school only.....	38	44
(Private or parochial schools).....	474	520
No. new school houses built during the year	229	183
Rural.....	170	141
State graded.....	45	27
High school and grades below.....	14	15
Cost of new school houses.....	\$1,098,117	\$1,339,585
Rural schools.....	396,783	418,063
State graded.....	299,358	267,285
High schools and grades.....	401,976	654,236
No. of pupils school houses will accommodate.....	348,064	349,279
Cities		
No. cities under city superintendents.....	80	80
No. public school buildings.....	501	503
Grades only.....	396	397
H. S. and grades.....	64	64
H. S. only.....	41	42
Parochial.....	248	237
No. class rooms.....	4,895	5,063
Seating capacity provided.....	187,552	189,469
No. assembly rooms.....	195	213
New buildings completed during year.....	9	71

TABLE 32.—*The County Superintendent's Office.*

	1916-17	1917-18
No. of county superintendents.....	73	73
Average salary	\$1,240	\$1,291.32
No. of counties employing clerks	47	46
No. of supervising teachers*	92	92
No. of different schools visited by county superintendents	7,279	8,065
No. of visits made	11,942	11,780
No. of visits made by supervising teachers.....	13,208	15,152
No. of schools visited.....	8,233	9,666
No. of teachers' institutes held.....	588	.....
No. of days held	639	.....
Total attendance	17,759	.....
No. of counties issuing a regular publication	40	.....

*For summary of supervising teachers' report see Table 17, Chapter VI.

TABLE 33.—*Insurance and Retirement Fund.*

	1917	1918
No. teachers contributing to the fund.....	12,098	13,539
Amount contributed by teachers (including annuitants)...	\$83,996.11	\$90,770.99
Amount contributed by state.....	\$67,006.00	\$67,488.30
No. annuitants June 30.....	259	300
Average annuity June 30.....	\$360.25	\$358.64
Average age of all annuitants at retirement.....	53	53
Amount refunded to teachers.....	\$3,551.09	\$6,182.02
Interest on reserve fund.....	\$18,508.04	\$21,961.07
Administration expenses.....	\$5,591.01	\$5,461.55
Cash on hand June 30.....	\$30,940.16	\$31,345.82
Amount invested June 30.....	\$448,871.05	\$514,852.19

TABLE 34.—*Financial Summary—Counties 1916-17.*

DISBURSEMENTS					
	Rural Schools	State Graded Schools	Free High Schools and Grades Below	Town and Union High School	Totals all Schools
Lands and buildings.....	\$402,102.68	\$319,033.56	\$362,228.01	\$22,241.48	\$1,105,605.73
Salaries of men teachers (excluding amount deduct- ed for teacher's pensions)...	176,507.52	185,605.57	421,505.89	61,948.43	845,567.41
Salaries of women teachers (excluding amount deduct- ed for teacher's pensions)...	2,381,744.24	762,250.21	1,045,000.07	60,757.98	4,249,752.50
Teacher's pension fund.....	21,745.39	7,098.96	11,696.00	1,126.09	41,666.44
Loans, payment of.....	358,941.38	244,820.16	525,404.87	32,762.63	1,161,429.04
Equipment.....	129,479.34	73,099.51	98,052.59	9,551.87	310,183.31
Interest on loans and school orders.....	28,575.41	24,693.04	47,870.86	2,374.57	103,513.88
Services of district clerk, treasurer, and director....	128,810.57	25,112.86	16,109.97	1,967.66	172,001.06
Text books.....	55,849.52	38,228.81	49,136.55	3,718.37	146,933.25
Stationery and supplies used in instruction.....	56,884.26	39,244.43	58,406.27	5,335.22	159,870.18
Janitor service and supplies.	88,091.57	96,656.49	160,254.85	11,575.14	356,578.05
Fuel and light.....	210,402.15	112,125.56	179,705.54	11,285.37	513,518.62
Repairs.....	207,252.76	64,709.16	85,368.28	5,017.98	362,348.18
Insurance.....	24,291.61	15,039.26	20,866.68	1,859.43	62,056.98
Transportation of children..	54,108.72	40,742.74	11,712.83	818.25	107,382.54
Tuition to other districts....	26,472.87	11,671.84	839.38	548.92	39,533.01
Other payments.....	137,358.49	76,268.31	105,905.47	12,195.78	331,727.66
Total payments.....	\$4,488,618.48	\$2,135,900.47	\$3,200,064.11	\$245,084.78	\$10,069,667.84

RECEIPTS					
	Rural Schools	State Graded Schools	Free High Schools and Grades Below	Town and Union High School	Total for all Schools
Money on hand June 30, 1915	\$1,593,501.88	\$466,677.63	\$400,831.29	\$49,020.02	\$2,510,030.82
Money borrowed.....	644,249.06	450,656.99	616,626.82	75,200.82	1,786,733.69
Sale of school bonds.....	3,571.15	12,916.08	213,983.05	.....	230,470.28
Sale of school property.....	13,536.55	16,469.44	22,070.15	275.00	52,351.14
State school apportionment..	845,363.81	246,225.41	219,210.96	.....	1,310,800.18
Taxes levied by county sup- erisors.....	862,404.46	245,121.91	254,783.44	.....	1,362,309.81
Special state aid.....	43,277.94	165,058.06	141,293.04	60,429.07	410,058.11
District taxes.....	2,033,193.55	882,761.40	1,450,617.39	118,094.54	4,484,666.88
Tuition received.....	16,143.78	22,379.05	199,839.89	13,144.57	251,507.29
Rent or sale of text books...	5,084.75	5,135.44	14,377.48	693.91	25,291.58
Interest on school funds.....	6,381.17	12,421.98	3,271.13	101.07	22,175.35
Other receipts.....	78,547.54	37,135.43	73,873.88	13,374.89	202,931.74
Total receipts.....	\$6,145,255.64	\$2,562,958.82	\$3,610,778.52	\$330,333.89	\$12,649,326.87
Total payments.....	\$4,488,618.48	\$2,135,900.47	\$3,200,064.11	\$245,084.78	\$10,069,667.84
Money on hand June 30, 1916	1,656,637.16	427,058.35	410,714.41	85,249.11	2,579,659.03
Amount of bills unpaid.....	44,905.74	45,392.85	37,201.97	22,112.75	149,613.31
Amount of bonded indebted- ness.....	496,026.77	701,780.93	1,158,907.45	141,966.01	2,498,681.16

TABLE 35.—Financial Summary—Counties 1917-18.

DISBURSEMENTS					
	Rural Schools	State Graded Schools	Free H. S. and Grades Below	Town and Union H. S.	Totals all Schools
Lands and buildings.....	\$483,866.10	\$292,275.00	\$388 630.55	\$56,866.66	\$1,221,638.31
Salaries of men teachers.....	138,502.02	167,244.65	415,171.85	64,270.24	785,188.86
(Excluding amount deducted for teachers' pensions.)					
Salaries of women teachers.....	2,645,792.79	810,431.45	1,193,559.04	66,917.77	4,716,701.05
(Excluding amount deducted for teachers' pensions.)					
Teachers' pension fund.....	24,588.58	7,642.42	14,107.36	1,240.71	47,579.07
Loans, payment of.....	410,293.21	336,399.68	676,595.29	39,993.28	1,463,281.46
Equipment.....	141,968.93	73,246.15	104,556.69	11,611.43	331,383.20
Interest on loans and school or- ders.....	28,946.84	27,702.15	58,493.14	2,907.12	118,049.25
Services of district clerk, treas- urer and director.....	132,594.95	25,234.30	18,432.54	2,062.32	178,324.11
Textbooks.....	66,787.53	36,677.21	52,874.62	3,510.95	159,850.31
Stationery and supplies used in instruction.....	70,965.97	44,238.21	64,891.05	6,829.89	186,925.12
Janitor service and supplies.....	102,966.56	111,538.27	181,967.81	13,772.83	410,245.47
Fuel and light.....	280,570.86	147,347.32	251,779.82	18,835.49	698,533.49
Repairs.....	216,147.78	92,348.17	93,673.37	6,764.32	408,933.64
Insurance.....	28,108.34	15,479.19	27,238.91	2,197.54	73,073.98
Transportation of children.....	58,875.74	48,207.42	28,783.76	1,547.72	137,419.64
Tuition to other districts.....	27,725.62	10,468.43	2,944.78	.....	41,138.83
Other payments.....	158,915.31	89,609.01	120,189.03	14,722.60	383,435.95
Total payments.....	\$5,017,617.13	\$2,336,089.03	\$3,693,939.71	\$314,050.87	\$11,361,696.74

RECEIPTS					
	Rural Schools	State Graded Schools	Free H. S. and Grades Below	Town and Union H. S.	Totals for all Schools
Money on hand June 30, 1916.....	\$1,642,983.58	\$448,690.76	\$420,470.29	\$81,366.77	\$2,593,511.40
Money borrowed.....	747,788.53	540,746.87	789,950.39	55,077.52	2,133,563.31
Sale of school bonds.....	8,844.10	68,626.88	239,961.08	18,250.00	334,782.06
Sale of school property.....	14,844.00	9,479.86	43,490.13	699.58	68,513.57
State school apportionment.....	897,379.70	247,124.82	230,623.51	4,200.00	1,379,328.03
Taxes levied by county super- visors.....	914,588.66	255,460.93	277,603.03	.....	1,447,652.62
Special state aid.....	39,998.46	166,351.69	153,253.08	52,334.46	411,937.69
District taxes.....	2,268,600.64	976,784.37	1,674,587.37	136,192.93	5,056,115.31
Tuition received.....	16,343.53	20,122.41	212,174.06	13,840.88	262,480.88
Rent or sale of textbooks.....	5,816.95	6,070.50	21,760.45	871.84	34,519.74
Interest on school funds.....	7,967.16	3,947.64	21,878.58	4,805.55	38,098.93
Other receipts.....	117,594.08	61,239.03	68,289.80	7,716.13	254,839.04
Total receipts.....	\$6,682,749.39	\$2,804,585.76	\$4,152,641.77	\$375,355.66	\$14,015,332.58
Total payments.....	\$5,017,617.13	\$2,336,089.03	\$3,693,939.71	\$314,050.87	\$11,361,696.74
Money on hand June 30, 1917.....	1,665,132.26	468,496.73	458,702.06	61,304.79	2,653,635.84
Amount of bills unpaid.....	58,328.44	29,152.11	65,652.67	2,264.51	155,397.73
Amount of bonded indebtedness.....	546,290.72	746,114.85	2,631,385.66	90,991.86	4,064,783.09

TABLE 36.—*Financial Summary Cities 1916-18*

DISBURSEMENTS	1916-17	1917-18
Expenses of general control:		
Board of education and the secretary's office.....	\$49,432.89	\$56,640.21
School census	5,662.67	6,194.35
Finance offices and accounts.....	735.35	459.04
Legal services	1,236.18	224.25
Operation and maintenance of office building.....	5,001.96	6,568.06
Officers in control of buildings and supplies.....	4,869.55	5,559.57
Salary of the superintendent of schools.....	138,924.67	139,413.76
Expenses of office of superintendent of schools.....	34,419.54	42,515.18
Enforcement of compulsory education and truancy laws	26,684.23	28,275.93
Other expenses of general control.....	5,470.22	9,252.76
	\$277,437.22	\$295,143.71
Expenses of instruction:		
Salaries of supervisors of grades or subjects.....	\$158,581.36	\$175,072.45
Other expenses of supervision.....	7,600.05	6,371.19
Salaries of principals and their clerks.....	427,750.25	467,503.42
Other expenses of principals.....	3,075.42	18,766.96
Salaries of men teachers. (Does not include amount		
withheld for pension and retirement fund).....	370,345.09	355,820.40
Salaries of women teachers. (Does not include amount		
withheld for pension and retirement fund).....	2,158,023.83	2,371,688.57
Textbooks	77,885.47	57,969.76
Stationery and supplies used in instruction.....	156,314.91	118,152.39
Materials used in manual training and domestic science	94,895.18	92,213.33
Other expenses of instruction.....	39,014.15	43,000.72
	\$5,181,210.82	\$5,410,081.35
Expenses of operation of school plant:		
Wages of janitor and other employees.....	\$446,312.83	\$486,663.34
Fuel	368,620.14	567,238.04
Water	55,173.08	55,843.32
Light and power.....	87,427.08	92,450.50
Janitors' supplies.....	39,546.07	38,095.23
Other expenses of operation of school plant.....	23,515.20	19,856.91
	\$5,181,210.82	\$1,280,147.34
Expenses of maintenance of school plant:		
Repair of buildings and upkeep of grounds.....	\$300,727.15	\$351,376.25
Repair and replacement of equipment.....	77,659.40	70,438.78
Insurance	34,359.11	42,268.44
Other expenses of maintenance of school plant.....	23,674.13	23,643.58
	\$436,419.79	\$487,727.05
Miscellaneous expenses:		
Salaries of librarians and assistants.....	\$8,621.58	\$10,698.09
Library books	12,432.03	18,010.33
Other expenses of libraries.....	1,714.62	1,768.36
Salaries of physicians and nurses.....	42,011.22	43,372.11
Other expenses of promotion of health.....	4,650.07	7,340.32
Transportation of pupils.....	10,379.21	7,238.84
Payments to other districts.....	2,666.79	2,269.17
Teachers' pension and retirement fund.....	40,587.33	44,361.84
Rent	11,319.73	10,731.38
Other miscellaneous expenses.....	42,933.81	45,385.21
	\$177,216.39	\$191,115.65

TABLE 36.—Continued.

	1916-17	1917-18
Outlays:		
Land	\$153,709.29	\$173,330.99
New buildings	1,050,849.88	1,206,559.55
Alteration of old buildings (not including repair and upkeep)	176,962.21	53,076.21
Equipment of new buildings and grounds	59,349.56	64,225.21
Equipment of old buildings exclusive of replacements	53,722.14	56,846.82
Redemption of bonds	142,909.34	104,391.42
Redemption of short-term loans	270,854.12	521,539.68
Payments of warrants and orders of preceding years	41,845.73	56,368.03
Payments of sinking funds	3,154.28	13,863.09
Payments of interest	41,579.86	44,801.77
Miscellaneous payments including payments to trust funds, textbooks to be sold to pupils, etc.	44,458.36	64,926.99
	\$2,039,384.76	\$2,359,929.76
Total expenses and outlays	\$9,132,263.38	\$10,024,094.86
Amount of bonded indebtedness	\$2,914,712.97	\$3,039,920.84
Amount of general indebtedness	551,976.11	430,481.16
Amount of bills unpaid	27,758.94	7,623.93

RECEIPTS.

Revenue receipts:		
State fund apportionment	\$990,908.53	\$1,016,761.87
Taxes levied by county supervisors	957,592.89	998,476.85
City school taxes	5,068,121.91	5,796,971.90
Free high school aid	31,643.05	41,191.61
State aid for manual training	16,157.87	14,918.36
State aid for domestic science	17,206.59	15,724.48
State aid for agriculture	1,638.49	3,507.24
State aid for deaf and blind	85,150.79	133,516.35
State aid for commercial course	14,607.42	15,120.40
State aid for teachers' training course	8,697.96	24,270.96
Tuition received	157,557.58	162,261.06
Other fees from patrons	10,005.13	21,649.24
Rent or sale of textbooks	40,289.00	48,202.29
Interest on school funds	37,266.18	38,831.12
All other revenue	151,679.60	46,661.36
	\$7,588,755.99	\$8,377,065.28
Nonrevenue receipts:		
Loans	\$464,932.36	\$582,188.28
Sale of bonds	1,372,610.50	1,215,532.40
Warrants issued and unpaid	48,107.35	43,063.53
Sales of real property and proceeds from insurance adjustments	51,561.01	18,869.27
Sales of equipment and supplies	27,835.03	35,830.58
Refund of payments	23,720.49	21,237.07
Other nonrevenue receipts	44,129.66	51,514.99
	\$2,032,896.40	\$1,968,226.12
Total all receipts	\$9,611,652.39	\$10,345,291.40
Balance on hand June 30, previous year	3,068,087.72	3,542,285.27
Total	\$12,679,740.11	\$13,887,576.67
Less total expenses and outlays	9,132,263.38	10,024,094.86
Balance on hand June 30	\$3,547,476.73	\$3,863,481.81

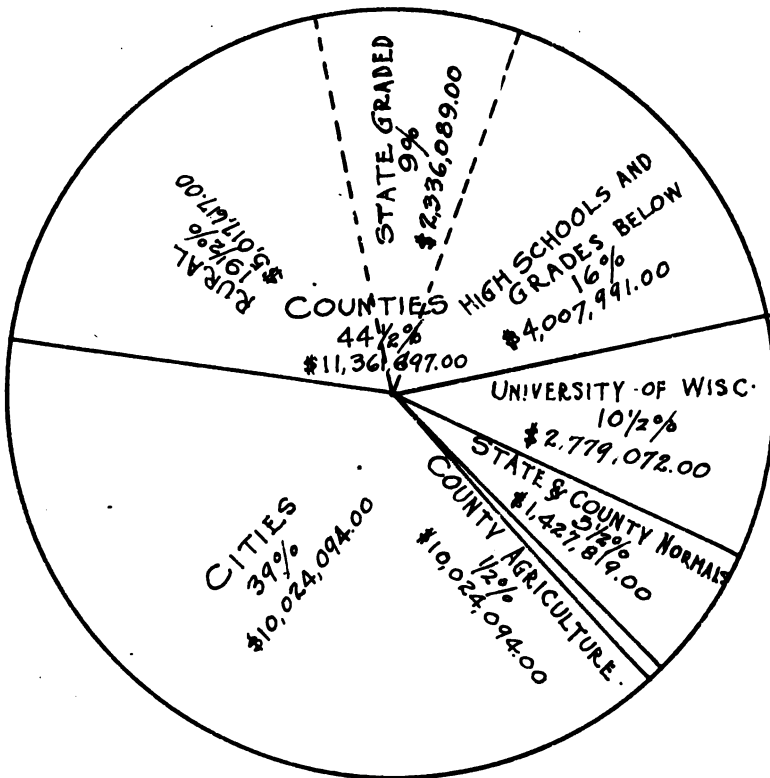


FIGURE 15. *Distribution of Total Expenditures for Education (for 1917)*

Total Expenditure	\$25,694,206
For Public Schools	21,385,791
For Higher and Special Education.....	4,308,415

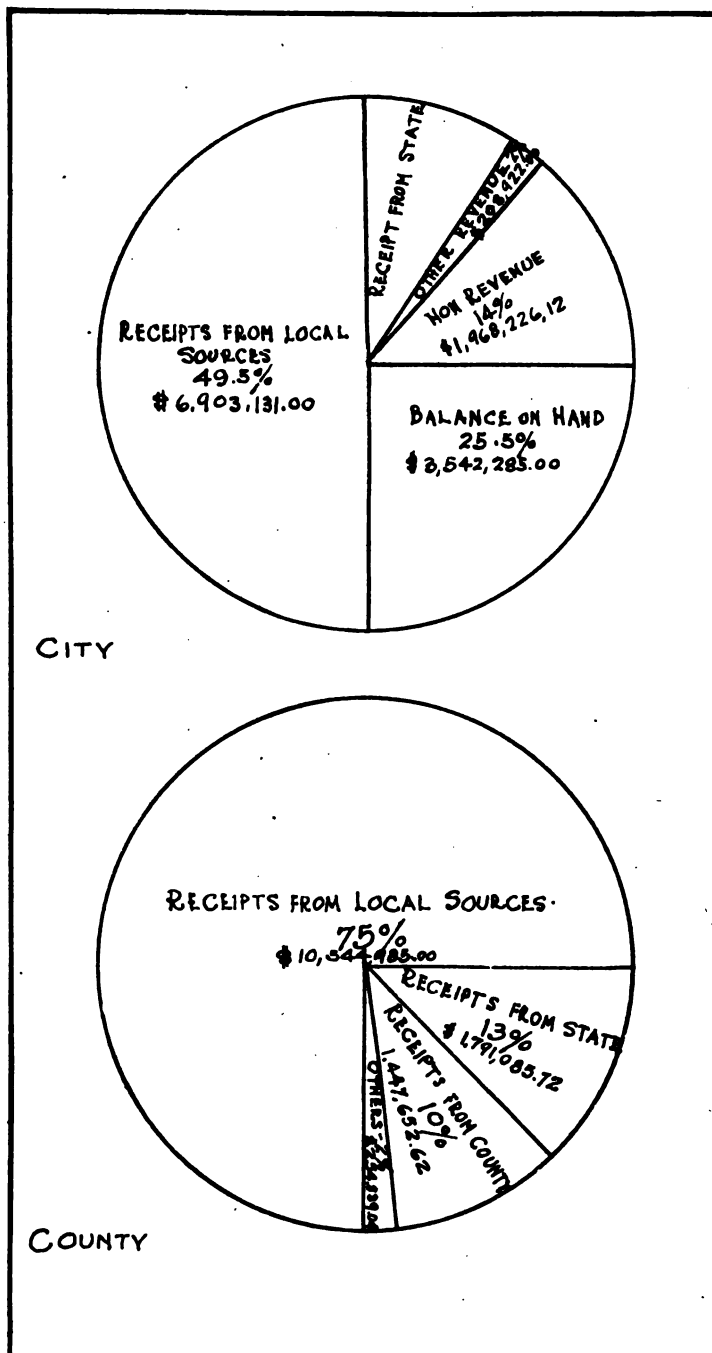
FIGURE 16. *Analyses of Receipts—1917-1918*

TABLE 37.—*Day Schools for the Deaf.*

	1916-17	1917-18
Total expenditures.....	\$91,142.33	\$86,428.42
Teachers salaries.....	63,703.66	61,098.14
Board and transportation.....	17,311.72	17,828.22
Supplies.....	3,284.13	2,512.56
Fuel.....	1,248.72	465.00
Janitors' salaries.....	2,358.00	731.00
Miscellaneous.....	3,286.10	858.31
Total enrollment.....	486	500
Defective speech.....	157	150
Congenitally deaf.....	140	137
Totally deaf.....	188	217
Partially deaf.....	141	128
Boarding.....	116	121
Part time pupils having defective speech.....	235	319
Doing industrial work.....	273	270

Schools are maintained at:

Antigo	Green Bay	Milwaukee	Richland Center
Appleton	Janesville	Mineral Point*	Ripon
Ashland	Kenosha	New London	Sheboygan
Black River Falls	La Crosse	Oshkosh	Stevens Point
Bloomington	Madison	Platteville	Superior
Eau Claire	Marinette	Racine	Wausau
Fond du Lac	Marshfield	Rice Lake	

*Discontinued in 1917-18.

TABLE 38.—*Day Schools for the Blind.*

	1916-17	1917-18
Total expenditures.....	\$9,991.26	\$10,651.71
Teachers' salaries.....	7,662.17	9,199.19
Board and transportation.....	1,206.18	1,008.08
Supplies.....	866.22	275.21
Miscellaneous.....	256.69	169.23
Enrollment.....	70	68

These schools are maintained at Milwaukee and Racine.

Vocational Schools

There are thirty-two cities maintaining vocational schools at the present time:

Appleton	Green Bay	Menasha	Sheboygan
Beaver Dam	Janesville	Menomonie	South Milwaukee
Beloit	Kenosha	Milwaukee	Stevens Point
Chippewa Falls	La Crosse	Neenah	Superior
Cudahy	Madison	North Milwaukee	Two Rivers
Eau Claire	Manitowoc	Oshkosh	Wausau
Fond du Lac	Marinette	Racine	Waukesha
Grand Rapids	Marshfield	Rhineland	West Allis

Cities of over 5,000 inhabitants required by law to establish such schools, but which have not yet done so.

Antigo	Baraboo	Oconto	Watertown
Ashland	Merrill	Portage	

Enrollment	1916-17	1917-18
Total day enrollment.....	23,045	25,298
Total evening enrollment.....	17,613	20,535
Grand total.....	40,658	45,833

Other Facts		
State aid.....	\$151,751	\$173,629
Number of teachers.....	...	*767
Cost of instruction and maintenance.....	\$460,858	\$501,238

* Not accurate because of confusion due to same teacher serving both day and evening sessions

TABLE 39.—County Training Schools
1916-17

County	Location	Date of organization	Teachers M. W. Tot.	Enrollment B. G. Tot.	Grads. B. G. Tot.	No. enrolled who have taught B. G. Tot.	Non-resident pupils B. G. Tot.	Teaching Cost	Total Cost of School	State Aid
Total			33	76 109 36 1594 1730	62 722 784	3 28 31 12 220 232		\$137,638.32	\$196,875.28	\$112,806.92
Ashtand	Wellen	1914	1	37 41	10 10	3 3	3 3	\$3,100.00	\$3,408.16	\$3,250.00
Barron	Rice Lake	1903	1	4 2 78 80	1 34 35	3 3	11 11	4,507.50	6,068.02	4,850.00
Buffalo	Alma	1903	1	3 9 27 26	3 14 17	1 1	1 1	4,000.00	5,227.60	4,250.00
Columbia	Columbus	1907	1	4 5 2 54 56	35 35	1 1	1 1	5,847.45	8,149.62	5,861.11
Crawford	Gays Mills	1907	1	2 3 6 29 36	2 15 17	3 3	3 3	3,680.00	5,269.54	4,060.00
Door-Kewaunee	Algoma	1907	1	3 4 22 39 61	11 24 35	1 1	7 7	5,257.50	9,982.64	4,290.00
Dunn	Menomonie	1899	1	4 5 4 86 90	1 80 31	3 3	3 3	6,950.00	10,480.72	4,444.44
Eau Claire	Eau Claire	1905	2	5 7 10 114 124	2 28 30	2 2	47 49	7,630.00	10,898.56	4,694.44
Green	Monroe	1909	1	2 3 3 80 83	1 43 44	1 1	7 8	4,060.98	5,456.17	3,923.75
Green Lake	Berlin	1908	2	2 4 7 52 59	3 21 24	1 1	14 14	4,641.64	6,114.60	3,686.84
Juneau	New Lisbon	1916	1	2 3 1 18 19	12 12	2 2	3 3	3,675.00	4,512.69	3,760.00
Langlade	Antigo	1905	1	3 4 54 54	25 25	2 2	3 3	3,950.00	5,125.68	4,200.00
Lincoln	Merrill	1906	1	1 3 4 58 62	3 19 22	2 2	1 1	5,200.00	7,171.82	4,200.00
Manitowoc	Manitowoc	1901	2	2 4 12 36 48	7 19 26	4 4	4 4	4,406.00	5,884.66	4,223.22
Marathon	Wausau	1899	1	3 4 9 84 98	4 23 27	1 1	6 6	4,690.00	5,862.36	4,694.44
Marquette	Marquette	1905	1	2 3 3 67 70	3 35 38	1 1	15 17	4,850.00	7,111.10	4,449.44
Oneida	Rhinelander	1909	3	3 31 31	19 19	2 2	3 3	5,683.00	8,983.00	3,860.00
Outagamie	So. Kaukauna	1912	1	3 4 7 57 64	5 33 38	1 1	14 16	4,492.50	7,294.87	4,023.75
Polk	St. Croix Falls	1901	1	2 3 1 40 41	13 13	1 1	1 1	3,860.00	5,215.16	3,277.50
Price	Phillips	1908	1	2 3 7 41 48	5 16 21	1 1	1 1	4,368.75	5,852.74	4,082.50
Racine	Union Grove	1916	1	1 2 36 36	16 16	1 1	17 17	2,600.00	3,771.23	3,771.23
Richland	Richland Center	1902	1	4 5 6 86 92	5 32 37	1 1	9 9	5,625.00	8,497.41	4,610.00
Rock	Janesville	1911	1	4 5 45 45	29 29	1 1	1 1	5,007.00	7,280.67	4,693.16
Rusk	Ladysmith	1906	1	2 3 2 33 35	18 18	2 2	1 1	3,650.00	5,580.82	3,650.00
Sauk	Reedsburg	1905	1	2 3 49 49	26 27	1 1	8 8	4,900.00	7,568.26	3,900.00

Taylor.....	1911	1	2	3	1	39	40	...	26	26	...	3	...	10	10	4,800.00	9,014.70	3,333.33	
Meadford	1907	1	3	4	1	55	56	1	30	31	...	...	...	...	...	4,130.00	5,160.86	3,180.00
Viroqua	1904	1	2	3	4	52	53	3	26	26	...	1	1	2	3	5	5,192.29	3,290.00	3,290.00
Waupaca	1908	1	2	3	1	80	81	1	18	19	...	...	...	...	...	3,800.00	4,746.98	2,850.00
Waushara	1903	1	2	3	6	87	93	1	35	36	...	3	1	4	2	18	4,800.00	8,432.27	4,900.00
Grand Rapids																			
Wood.....																			

* Organized in 1916.

1917—18

Total.....	34	82	116	87	1021	1708	43	789	832	...	74	74	2	172	174	\$141,867.10	\$206,935.90	\$132,620.21
Ashland.....	1	2	3	...	39	39	...	8	8	...	7	7	...	...	1	\$3,407.87	\$3,680.18	\$3,386.70
Baron.....	1	3	4	...	58	58	...	34	38	...	...	...	...	11	11	4,610.00	6,283.28	4,684.44
Rice Lake.....	1	2	3	9	33	42	6	16	22	...	...	...	...	...	...	4,800.00	5,710.49	4,250.00
Alma.....	1	4	5	2	77	79	1	41	42	...	13	13	...	16	16	6,015.48	8,939.52	4,916.67
Columbus.....	1	2	3	5	51	56	...	23	23	...	...	...	...	4	4	3,725.00	4,759.27	4,250.00
Guys Mills.....	1	3	4	15	37	52	12	24	36	...	1	1	...	2	2	6,551.25	12,429.76	5,260.00
Door-Kewaunee.....	1	4	5	4	79	83	1	27	28	...	...	...	...	3	3	7,200.00	10,579.09	4,684.44
Dunn.....	2	5	7	10	90	100	2	26	28	...	1	1	...	34	34	7,200.00	10,513.85	4,684.44
Eau Claire.....	1	3	4	...	56	56	...	45	45	...	2	2	...	5	5	4,642.79	5,915.23	4,307.45
Green.....	1	2	3	1	85	86	...	28	28	...	26	26	...	14	14	4,491.64	5,946.57	4,491.67
Berlin.....	1	2	3	...	32	33	...	23	23	...	2	2	...	4	4	4,546.25	5,080.17	4,175.00
Juneau.....	1	2	3	1	38	38	...	21	21	...	...	...	...	2	2	4,100.00	5,153.85	3,850.00
Langlade.....	1	2	3	...	50	55	4	30	34	...	3	3	...	2	2	5,070.00	7,456.28	4,684.44
Merrill.....	1	3	4	5	45	52	4	18	22	...	...	...	1	2	3	4,450.00	6,028.56	4,222.22
Manitowoc.....	2	2	4	7	45	52	4	18	22	...	...	...	...	...	...	5,852.66	7,961.25	4,684.44
Wausau.....	2	4	6	9	85	94	2	35	37	...	...	...	...	...	...	7,329.69	10,083.54	4,444.44
Marquette.....	1	2	3	...	60	60	...	39	39	...	1	1	...	12	12	5,200.00	6,164.02	3,825.00
Oneida.....	1	2	4	...	26	26	...	13	13	...	5	5	...	3	3	3,950.00	7,792.40	4,684.44
Outagamie.....	1	3	4	2	57	59	1	37	38	...	...	...	...	14	14	3,905.00	4,863.51	3,950.00
Polk.....	1	2	3	1	47	48	...	16	16	...	...	...	...	1	1	4,896.60	5,217.33	4,818.06
Price.....	1	2	3	4	27	31	3	21	24	...	1	1	...	...	...	4,596.60	5,217.33	4,818.06
Racine.....	1	3	4	...	48	48	...	28	28	...	2	2	...	5	5	4,291.61	5,853.45	2,600.00
Richland.....	1	4	5	1	116	117	...	39	39	...	5	5	...	...	...	8,730.72	10,083.54	5,250.00
Janesville.....	1	4	5	...	41	41	...	15	15	...	...	...	...	...	...	5,285.00	8,331.56	4,684.44
Rock.....	1	3	4	...	35	36	...	18	18	...	1	1	...	...	...	4,657.50	6,525.64	3,650.00
Ladysmith.....	1	3	4	1	48	49	1	24	25	...	2	2	...	9	9	4,100.00	7,246.11	4,887.50
Reedsburg.....	1	3	4	1	48	49	1	24	25	...	2	2	...	9	9	4,100.00	7,246.11	4,887.50
Sauk.....	1	3	4	1	48	49	1	24	25	...	2	2	...	9	9	4,100.00	7,246.11	4,887.50
Taylor.....	1	2	3	...	36	36	...	24	24	...	...	...	...	6	6	3,900.00	5,450.06	5,310.00
Vernon.....	1	3	4	...	58	61	1	33	34	...	1	1	...	...	...	5,706.10	4,094.44	4,094.44
Waupaca.....	1	2	3	...	40	40	...	27	27	...	...	...	...	2	2	3,900.00	5,096.87	5,105.55
Waushara.....	1	2	3	2	38	40	1	14	15	...	...	...	...	1	1	3,050.00	3,939.22	4,050.00
Wood.....	1	2	3	4	89	93	4	38	42	...	...	...	...	20	21	4,650.00	8,112.78	4,684.44

TABLE 40.—*Teachers Training Course in High Schools.*

Place	1916-1917						1917-1918					
	Enrollment			Grads.			Enrollment			Grads.		
	R	G	Total	B	G	Total	B	G	Total	B	G	Total
Total.....	53	829	882	27	389	416	37	761	798	16	345	361
Black River Falls.....	.....	22	22	.....	12	12	.....	21	21	.....	9	9
Chilton.....	1	21	22	.....	10	10	.....	16	16	.....	9	9
Chippewa Falls.....	1	45	46	.....	38	38	2	46	47	2	21	23
Grandon.....	.....	17	17	.....	18	18	1	13	14	.....	8	8
Darlington.....	6	42	48	5	18	23	2	43	45	1	19	20
Dodgeville.....	7	35	42	2	13	15	2	26	28	1	15	16
Ellsworth.....	3	23	26	2	11	13	2	24	26	1	12	13
Fennimore.....	2	18	20	1	9	10	4	11	15	1	6	7
Florence.....	2	8	10	.....	7	7	1	10	11	1	6	7
Fond du Lac*.....	2	73	75	1	15	16	1	94	95	.....	18	18
Galesville.....	.....	24	24	2	12	14	.....	18	18	.....	9	9
Grantsburg.....	3	28	31	2	13	15	.....	27	29	.....	13	13
Hayward.....	4	41	45	1	11	12	2	12	12	.....	6	6
Jefferson.....	.....	25	25	.....	16	16	.....	21	21	.....	9	9
Mayville.....	3	26	29	1	8	9	7	18	25	4	14	18
Nellsville.....	.....	25	25	.....	15	15	.....	18	18	.....	9	9
New Richmond.....	3	69	72	1	15	16	.....	28	28	.....	11	11
Oconto Falls*.....	2	34	36	1	17	18	2	30	30	1	16	17
Onore.....	.....	41	41	.....	19	19	.....	40	40	.....	22	22
Plymouth.....	4	29	33	4	29	33	5	58	58	.....	21	21
Shawano.....	.....	18	18	.....	17	17	.....	37	42	1	20	21
Spencer.....	4	17	21	.....	6	6	.....	15	15	.....	16	16
Stoughton.....	.....	24	24	3	7	10	.....	17	17	.....	8	8
Tomah.....	.....	41	41	.....	22	22	.....	28	28	.....	11	11
Washburn.....	.....	40	40	.....	21	21	.....	32	32	.....	16	16
Waukesha.....	2	29	31	2	8	10	.....	40	40	.....	12	12
Westfield.....	4	19	23	1	14	15	.....	26	26	.....	12	12
Ripon*.....	.....	.....	.....	.....	.....	.....	4	13	17	3	6	9
Green Bay*.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total.....	53	829	882	27	389	416	37	761	798	16	345	361
Black River Falls.....	.....	22	22	.....	12	12	.....	21	21	.....	9	9
Chilton.....	1	21	22	.....	10	10	.....	16	16	.....	9	9
Chippewa Falls.....	1	45	46	.....	38	38	2	46	47	2	21	23
Grandon.....	.....	17	17	.....	18	18	1	13	14	.....	8	8
Darlington.....	6	42	48	5	18	23	2	43	45	1	19	20
Dodgeville.....	7	35	42	2	13	15	2	26	28	1	15	16
Ellsworth.....	3	23	26	2	11	13	2	24	26	1	12	13
Fennimore.....	2	18	20	1	9	10	4	11	15	1	6	7
Florence.....	2	8	10	.....	7	7	1	10	11	1	6	7
Fond du Lac*.....	2	73	75	1	15	16	1	94	95	.....	18	18
Galesville.....	.....	24	24	2	12	14	.....	18	18	.....	9	9
Grantsburg.....	3	28	31	2	13	15	.....	27	29	.....	13	13
Hayward.....	4	41	45	1	11	12	2	12	12	.....	6	6
Jefferson.....	.....	25	25	.....	16	16	.....	21	21	.....	9	9
Mayville.....	3	26	29	1	8	9	7	18	25	4	14	18
Nellsville.....	.....	25	25	.....	15	15	.....	18	18	.....	9	9
New Richmond.....	3	69	72	1	15	16	.....	28	28	.....	11	11
Oconto Falls*.....	2	34	36	1	17	18	2	30	30	1	16	17
Onore.....	.....	41	41	.....	19	19	.....	40	40	.....	22	22
Plymouth.....	4	29	33	4	29	33	5	58	58	.....	21	21
Shawano.....	.....	18	18	.....	17	17	.....	37	42	1	20	21
Spencer.....	4	17	21	.....	6	6	.....	15	15	.....	16	16
Stoughton.....	.....	24	24	3	7	10	.....	17	17	.....	8	8
Tomah.....	.....	41	41	.....	22	22	.....	28	28	.....	11	11
Washburn.....	.....	40	40	.....	21	21	.....	32	32	.....	16	16
Waukesha.....	2	29	31	2	8	10	.....	40	40	.....	12	12
Westfield.....	4	19	23	1	14	15	.....	26	26	.....	12	12
Ripon*.....	.....	.....	.....	.....	.....	.....	4	13	17	3	6	9
Green Bay*.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total.....	53	829	882	27	389	416	37	761	798	16	345	361
Black River Falls.....	.....	22	22	.....	12	12	.....	21	21	.....	9	9
Chilton.....	1	21	22	.....	10	10	.....	16	16	.....	9	9
Chippewa Falls.....	1	45	46	.....	38	38	2	46	47	2	21	23
Grandon.....	.....	17	17	.....	18	18	1	13	14	.....	8	8
Darlington.....	6	42	48	5	18	23	2	43	45	1	19	20
Dodgeville.....	7	35	42	2	13	15	2	26	28	1	15	16
Ellsworth.....	3	23	26	2	11	13	2	24	26	1	12	13
Fennimore.....	2	18	20	1	9	10	4	11	15	1	6	7
Florence.....	2	8	10	.....	7	7	1	10	11	1	6	7
Fond du Lac*.....	2	73	75	1	15	16	1	94	95	.....	18	18
Galesville.....	.....	24	24	2	12	14	.....	18	18	.....	9	9
Grantsburg.....	3	28	31	2	13	15	.....	27	29	.....	13	13
Hayward.....	4	41	45	1	11	12	2	12	12	.....	6	6
Jefferson.....	.....	25	25	.....	16	16	.....	21	21	.....	9	9
Mayville.....	3	26	29	1	8	9	7	18	25	4	14	18
Nellsville.....	.....	25	25	.....	15	15	.....	18	18	.....	9	9
New Richmond.....	3	69	72	1	15	16	.....	28	28	.....	11	11
Oconto Falls*.....	2	34	36	1	17	18	2	30	30	1	16	17
Onore.....	.....	41	41	.....	19	19	.....	40	40	.....	22	22
Plymouth.....	4	29	33	4	29	33	5	58	58	.....	21	21
Shawano.....	.....	18	18	.....	17	17	.....	37	42	1	20	21
Spencer.....	4	17	21	.....	6	6	.....	15	15	.....	16	16
Stoughton.....	.....	24	24	3	7	10	.....	17	17	.....	8	8
Tomah.....	.....	41	41	.....	22	22	.....	28	28	.....	11	11
Washburn.....	.....	40	40	.....	21	21	.....	32	32	.....	16	16
Waukesha.....	2	29	31	2	8	10	.....	40	40	.....	12	12
Westfield.....	4	19	23	1	14	15	.....	26	26	.....	12	12
Ripon*.....	.....	.....	.....	.....	.....	.....	4	13	17	3	6	9
Green Bay*.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

* Fond du Lac and Oconto Falls did not receive aid until after report had been made.

† Ripon and Green Bay discontinued course in 1917.

TABLE 41.—*Normal Schools.*

	Average Enroll- ment	Gradu- ates	Teach- ers	Total Expendi- tures	Capital	Mainte- nance	Operation
1916-17							
Total.....	4,743	1,785	375	\$1,358,954.21	\$514,310.90	\$32,147.03	\$812,496.28
Eau Claire.....	184	65	21	113,970.15	67,147.63	381.16	46,441.36
La Crosse.....	484	196	41	130,594.62	37,772.66	2,916.71	89,905.25
Milwaukee.....	1,100	389	81	195,671.79	28,709.95	6,697.42	160,264.42
Oshkosh.....	496	231	45	292,897.34	183,819.55	2,697.34	106,380.45
Platteville.....	325	116	29	119,210.67	47,209.31	3,079.32	68,922.04
River Falls.....	582	230	42	115,862.61	17,865.65	4,553.26	93,443.70
Stevens Point...	601	253	47	152,525.24	53,119.88	5,590.08	93,815.28
Superior.....	526	162	33	141,618.62	64,312.49	637.62	76,668.51
Whitewater.....	445	143	36	96,603.17	14,353.78	5,594.12	76,655.27
1917-18							
Total.....	3,943	1,655	396	\$1,220,883.90	\$359,711.34	\$22,368.08	\$838,804.48
Eau Claire.....	193	103	26	75,757.96	17,138.61	147.01	58,472.34
La Crosse.....	405	134	43	120,962.28	26,378.41	2,849.38	91,734.49
Milwaukee.....	1,036	470	83	175,400.12	10,330.26	3,896.93	161,172.93
Oshkosh.....	395	187	44	257,010.99	153,419.66	1,729.38	101,861.95
Platteville.....	288	98	31	110,984.96	35,184.70	2,675.03	73,125.23
River Falls.....	472	176	41	112,214.66	13,300.75	2,965.96	95,947.92
Stevens Point...	461	207	48	131,814.40	29,629.79	5,593.82	96,590.79
Superior.....	428	145	34	149,692.41	68,533.59	308.17	80,845.65
Whitewater.....	260	135	36	87,046.12	5,790.54	2,202.40	79,053.18

TABLE 42.—*University of Wisconsin—Summary of Enrollment and Faculty*

	1916-17	1917-18
Graduate school.....	302	353
Letters and Science.....	2,096	2,914
Engineering.....	657	552
Agriculture.....	929	620
Law school.....	190	32
Medical school.....	183	126
School of music.....	108	97
Library school.....	37	34
Total.....	5,471	4,425
Deducting twice enumerated.....	153	139
Net total regular year.....	5,318	4,286
Summer session.....	3,128	2,334
Deducting students regular year.....	801	542
Revised total summer session.....	2,327	1,792
Short and dairy courses.....	476	289
Grand total excluding extension students.....	8,121	6,367
Extension division.....	9,537	9,388
Faculty members—total.....	751	690
President and deans.....	10	10
Professors.....	93	95
Associate professors.....	56	66
Assistant professors.....	147	129
Lecturers (giving part time).....	25	23
Instructors.....	226	212
Assistants (mainly half-time).....	25	128

TABLE 43.—*University of Wisconsin—Summary of Financial Report*

RECEIPTS	1916-17	1917-18
Total receipts.....	\$3,013,899.48	\$2,901,453.94
From students.....	653,694.14	556,743.70
Interest.....	36,443.86	39,109.21
Grants.....	1,934,169.36	1,929,580.21
Gifts.....	21,799.98	24,863.43
Other sources.....	367,792.14	351,157.39
DISBURSEMENTS		
Total.....	\$2,845,281.64	\$2,779,071.96
Instruction and administration.....	1,542,089.90	1,465,141.64
Wages.....	217,212.77	214,329.69
Maintenance.....	350,509.61	427,747.08
Supplies and material.....	369,584.35	379,367.64
Permanent improvements.....	340,633.77	265,911.01
Refunds.....	25,251.24	26,574.90

TABLE 44—Free High Schools—Continued.

Location	1916-17										1917-18					
	Enrollment	Graduates 1917	Teachers	Cost of High School Main-tenance (es-timated)	Cost of High School In-struction	Enrollment Manual Training	Enrollment Domestic Science	Enrollment Agriculture	Enrollment Commercial Course	Enrollment	Enrollment	Enrollment	Enrollment	Enrollment	Enrollment	Enrollment
Iola.....	67	8	3	\$3,046.00	\$2,222.88	6	20	.....	.....	59	12	3	\$3,415.00	\$2,260.00	.....	.....
Iron Belt.....	23	2	3	3,000.00	2,181.00	.....	.....	.....	.....	29	2	4	4,350.00	2,791.00	.....	.....
Iron River.....	69	12	4	4,386.00	2,462.50	.....	.....	.....	.....	45	12	4	5,044.65	3,288.00	.....	.....
Janesville.....	570	66	22	28,863.34	21,355.00	117	198	69	104	584	76	25	25,042.71	20,659.23	200	206
Jefferson.....	149	35	10	11,506.93	8,208.00	31	44	.....	51	135	24	12	13,358.89	8,950.13	36	71
Johnson Creek.....	29	6	2	1,821.78	1,495.50	.....	.....	.....	.....	31	5	2	2,378.53	1,641.50	.....	.....
Juda.....	36	6	2	2,238.83	1,630.00	.....	.....	.....	.....	42	5	2	2,347.64	1,886.33	.....	.....
Juneau.....	73	11	4	4,150.00	3,150.00	.....	.....	.....	.....	62	10	4	7,500.00	2,100.02	.....	.....
Kaukauna.....	166	29	12	18,455.82	8,800.00	8	55	.....	28	172	24	13	15,638.76	9,469.00	71	75
Kendall.....	46	11	3	2,749.68	2,148.89	.....	.....	.....	.....	35	7	3	3,398.91	2,250.00	.....	.....
Kenosha.....	569	58	30	37,336.14	25,980.00	63	25	.....	114	559	80	33	44,290.37	28,448.75	.....	196
Kewaskum.....	44	9	4	2,682.49	2,135.00	.....	.....	.....	.....	54	9	4	2,781.60	2,326.00	.....	.....
Kewaunee.....	145	23	9	7,288.28	6,454.17	23	37	.....	58	143	21	9	9,354.35	7,561.00	29	40
Kiel.....	86	9	7	7,776.70	5,537.50	21	23	.....	91	94	21	7	6,065.00	5,398.75	20	46
Kilbourn.....	97	11	6	5,200.00	3,725.00	.....	38	46	.....	105	22	8	6,600.00	4,495.02	46	16
La Crosse.....	989	162	47	69,471.15	43,591.25	210	219	.....	366	1,105	164	44	68,626.04	41,941.46	220	336
Ladysmith.....	145	19	8	10,000.00	5,690.17	35	40	.....	64	173	21	9	10,000.00	6,037.50	23	87
La Farge.....	71	13	5	6,838.00	3,874.12	.....	15	23	.....	52	10	5	5,280.00	3,781.25	19	87
Lake Geneva.....	196	24	9	12,000.00	6,980.63	30	30	.....	72	211	35	10	12,250.00	7,615.00	35	99
Lake Mills.....	118	21	7	8,200.00	5,956.00	.....	.....	.....	21	128	18	8	.....	5,227.00	.....	.....
Lancaster.....	161	27	12	11,674.00	7,543.03	41	51	.....	33	174	26	12	12,000.00	8,072.00	47	50
Laona.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	33	4	5	6,868.04	2,945.75	.....	.....
Leona.....	54	7	2	1,874.95	1,473.75	.....	.....	.....	.....	60	5	3	2,760.00	2,174.48	.....	.....
Linden.....	42	6	4	3,550.00	2,062.40	.....	.....	.....	27	45	6	4	8,000.00	1,970.00	.....	26
Little Chute.....	30	4	3	4,724.35	2,160.00	.....	.....	.....	30	27	9	3	3,768.15	2,108.00	.....	26
Livingston.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lodi.....	55	8	4	7,776.82	3,840.00	.....	13	44	.....	52	8	4	8,282.97	3,345.16	.....	38
Loma.....	121	34	6	8,213.00	4,425.00	.....	.....	.....	56	101	21	6	9,388.64	4,442.00	.....	51
Lonsdale.....	39	6	2	4,541.62	1,542.00	.....	.....	.....	.....	45	3	3	2,488.65	1,608.03	.....	.....
Lone Rock.....	54	9	3	3,500.00	1,695.00	47	6	3	3,700.00	1,728.75
Loyal.....	54	5	4	5,003.16	2,910.00	14	44	76	8	4	4,707.00	3,247.00	27

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Madison.....	1,150	237	66,538.90	47,576.25	146	249	197	1,184	213	64	85,733.92	53,209.00	238	178	205
Manitowish.....	127	27	4,855.00	3,967.50	26	26	.....	146	20	5	6,223.60	3,945.00	.....	27	.....
Manitowoc.....	569	91	31,076.00	26,065.63	76	80	234	590	94	27	36,450.00	27,609.25	80	107	318
Marquette.....	478	86	23,248.49	15,696.50	75	113	98	400	77	19	27,850.41	17,575.00	86	160	113
Marion.....	50	4	3,864.63	3,035.00	.....	.....	26	56	12	4	.....	.....	.....	.....	.....
Markesan.....	75	14	7,080.35	3,212.55	.....	17	18	72	18	4	5,978.00	3,220.50	21	21	.....
Marshall.....	42	28	3,289.93	2,215.00	.....	18	24	52	3	3	3,523.47	2,510.00	25	23	.....
Marshfield.....	226	28	11,260.00	9,186.25	.....	39	62	237	33	11	13,000.00	10,194.07	36	59	53
Mattoon.....	42	8	2,125.00	1,867.50	.....	56	.....	44	11	3	2,295.00	2,136.00	.....	.....	.....
Mauston.....	186	30	8,130.37	4,915.00	.....	.....	.....	179	529	7	8,322.00	5,639.05	48	.....	.....
Mayville.....	130	25	8,203.00	4,836.75	20	38	.....	130	24	8	12,394.49	4,976.63	23	22	.....
Mazomanie.....	86	17	4,750.00	3,249.50	.....	.....	37	21	73	5	5,340.00	3,738.28	.....	26	8
Medford.....	170	22	7,000.00	5,971.67	.....	.....	104	184	32	8	16,000.00	6,556.00	.....	.....	142
Mellen.....	83	16	5,000.00	3,105.00	20	33	.....	99	12	6	6,000.00	3,805.00	24	30	.....
Melrose.....	46	6	2,028.40	1,440.00	.....	.....	.....	47	12	2	2,788.24	1,685.00	.....	.....	.....
Menasha.....	168	31	16,270.00	8,270.00	39	48	73	175	27	11	17,340.00	9,240.00	43	42	87
Menomonee Falls.....	46	8	6,889.39	2,289.00	.....	20	.....	60	6	4	5,077.50	3,465.00	.....	9	.....
Menomonie.....	280	52	14,000.00	11,642.50	77	99	110	274	39	12	.....	.....	95	107	58
Merrill.....	329	71	17,369.00	11,563.50	62	93	79	327	49	16	11,484.25	62	112	45	61
Merrillan.....	52	9	2,472.70	2,108.25	.....	26	46	50	9	4	3,052.61	2,298.75	.....	17	54
Middleton.....	78	20	5,265.20	3,545.00	20	.....	37	82	15	5	55,346.50	33,765.00	24	.....	33
Milwaukee.....	62	4	8,868.89	3,592.50	28	30	34	69	8	4	13,866.02	3,815.00	15	26	20
Milton.....	84	17	4,959.00	3,892.50	.....	.....	51	91	17	4	11,883.00	4,131.43	.....	.....	.....
Milton Junction.....	62	13	4,504.23	3,615.00	.....	.....	33	64	12	4	11,883.04	3,940.00	.....	47	.....
Milwaukee (Bay View).....	378	11	24,000.00	17,280.00	115	132	157	455	47	17	30,000.00	19,670.00	144	168	119
Milwaukee (East).....	151	.....	86,600.00	66,455.00	311	179	209	1,274	143	46	84,171.00	69,890.00	98	142	222
Milwaukee (North).....	112	.....	77,894.90	67,880.00	58	73	285	1,265	110	42	.....	64,690.00	65	53	300
Milwaukee (South).....	1,250	114	75,574.66	69,080.00	170	129	285	1,232	142	44	.....	.....	195	108	291
Milwaukee (West).....	381	78	71,086.61	43,844.00	160	163	385	938	74	35	47,345.00	156	206	467	467
Milwaukee (West).....	1,240	143	80,000.00	72,319.96	150	78	201	1,268	157	45	88,000.00	71,670.00	155	100	243
Mineral Point.....	186	33	11,685.78	7,605.00	46	50	29	182	21	10	12,701.67	8,010.00	45	33	36
Minocqua.....	59	9	4,213.21	2,780.00	.....	.....	55	55	10	3	3,794.24	2,550.00	.....	10	3
Minong.....	17	5	2,200.00	1,485.00	.....	5	12	13	20	2	1,320.75	2,010.00	.....	2	.....
Mishicot.....	166	27	2,400.00	1,480.00	.....	26	71	77	33	8	4,081.45	7,004.40	.....	24	50
Mondovi.....	.....	.....	8,000.00	7,002.50	.....	.....	.....	156	.....	.....	.....	.....	.....	.....	77
Monroe.....	214	45	15,035.95	7,811.50	40	62	280	280	42	14	20,200.00	10,093.41	43	67	44
Montello.....	62	9	5,133.83	3,977.50	19	39	26	65	12	5	6,255.56	2,828.00	16	28	34
Montfort.....	68	9	5,500.00	3,977.50	19	39	.....	.....	12	5	7,820.45	3,960.00	14	18	54
Monticello.....	40	8	2,292.00	1,867.00	.....	.....	41	51	10	4	2,620.00	2,142.12	.....	31	23
Mosinee.....	46	6	4,100.00	3,105.00	.....	.....	22	56	7	4	5,196.00	3,495.00	.....	.....	22
Mountain.....	30	6	8,832.49	2,070.00	.....	12	36	23	6	2	3,827.04	1,875.00	.....	7	20
Mount Hope.....	39	12	8,336.50	2,215.00	.....	46	.....	58	4	3	3,281.61	2,850.00	31	44	76
Mt. Horeb.....	115	29	6,659.69	4,145.00	21	42	48	129	27	8	1,400.00	4,486.17	.....	40	46
Mukwonago.....	62	14	3,477.63	3,681.50	.....	30	.....	113	13	4	4,500.00	3,745.00	.....	18	.....
Muscodota.....	.....	.....	2,393.75	.....	.....	.....	.....	59	13	5	3,248.00	2,220.00	.....	.....	.....

TABLE 44—Free High Schools—Continued.

Location	1916-17							1917-18										
	Enrollment	Graduates 1917	Teachers	Cost of High School Maintenance (estimated)	Cost of High School Instruction	Enrollment Manual Training	Enrollment Domestic Science	Enrollment Agriculture	Enrollment Commercial Course	Enrollment	Graduates 1918	Teachers	Cost of High School Maintenance (estimated)	Cost of High School Instruction	Enrollment Manual Training	Enrollment Domestic Science	Enrollment Agriculture	Enrollment Commercial Course
Necedah	41	8	3	\$2,780.00	\$2,200.00	...	...	...	33	49	12	3	\$2,925.00	\$2,375.00	48	63	51	41
Neenah	279	48	12	15,573.45	8,850.75	119	30	36	33	277	26	13	16,480.00	9,690.99	48	63	51	41
Nellaville	147	28	10	12,595.23	6,081.58	27	46	...	41	170	26	11	25,155.93	6,980.70	27	44	...	21
Nekoosa	50	15	5	5,357.00	3,860.70	...	14	...	...	48	7	5	6,090.41	3,132.00	6	11	...	...
Neshkoro	31	8	2	1,800.00	1,125.00	...	...	...	...	23	6	2	1,700.00	1,203.75	...	...	...	...
New Auburn	Organized 1917	...	...	...	...	...	...	...	...	27	2	2	3,332.09	1,240.00	...	...	...	...
New Glarus	42	6	4	3,339.50	2,407.50	...	...	...	...	44	6	4	2,750.00	2,250.00	...	...	...	...
New Holstein	63	10	5	4,730.00	3,145.00	23	20	...	...	58	8	5	5,500.00	3,710.29	19	15	...	...
New Lisbon	122	20	8	8,000.00	5,098.00	26	19	...	27	124	22	9	8,676.00	4,593.00	34	25	...	15
New London	151	33	12	9,461.91	5,862.00	51	49	...	...	161	27	11	11,867.00	6,240.96	49	52	...	...
New Richmond	311	62	15	16,500.00	10,254.38	...	79	34	123	323	57	14	16,827.00	10,048.00	...	56	47	31
North Grandon	17	2	2	3,369.03	1,155.00	...	...	...	...	21	2	2	3,511.41	1,800.00	...	...	...	...
North Fond du Lac	78	12	4	4,260.11	2,807.50	...	...	...	...	90	13	5	5,045.67	3,701.67	...	...	...	38
North Freedom	43	1	3	2,700.00	2,385.00	...	20	...	...	43	5	3	3,000.00	2,430.00	...	19	...	8
Norwalk	43	4	3	3,000.00	2,020.80	...	...	...	...	48	10	3	3,000.00	2,211.67	...	...	...	...
Oakfield	38	12	3	2,445.00	1,937.50	...	...	...	...	30	2	3	2,738.00	1,980.00	...	...	...	...
Oakwood	12	1	1	1,612.00	1,185.00	...	...	...	...	...	...	...	...	...	...	...	...	...
Oconomowoc	186	29	9	10,565.00	6,592.14	32	35	...	...	196	20	9	10,949.34	7,079.28	33	26	...	...
Oconto	374	42	13	13,003.16	8,470.42	62	56	38	110	237	38	12	12,000.00	7,842.67	51	49	18	114
Oconto Falls	145	20	8	10,567.90	5,055.00	...	38	51	36	148	21	8	8,200.00	5,512.50	...	35	65	42
Omro	154	34	9	10,411.87	5,548.75	36	53	94	44	166	36	9	10,963.10	5,758.75	46	39	20	42
Onalaska	45	13	5	3,272.90	2,385.83	19	...	...	33	56	8	4	2,992.58	2,688.76	...	...	...	26
Ontario	29	6	2	2,660.00	1,803.20	...	...	...	...	21	2	2	1,750.00	1,076.25	...	...	...	...
Oostburg	41	6	2	1,303.00	1,223.44	...	...	...	...	41	4	2	1,500.00	1,216.78	...	...	...	...
Oregon	58	10	4	4,025.00	2,760.00	...	...	...	...	64	10	4	4,333.00	2,835.00	...	...	...	...
Osceola	72	12	5	7,300.95	3,557.50	...	...	...	...	87	12	6	13,081.79	4,071.00	...	37	12	38
Oshkosh	1,034	129	32	52,654.88	32,350.00	382	373	29	41	996	134	26	...	42,100.00	29	217	73	184
Osseo	46	12	3	3,452.00	2,205.60	...	...	66	288	71	16	4	5,225.00	2,569.50	...	51	19	...
Oxford	46	5	4	5,000.00	2,900.00	65	12	4	5,500.00	3,036.08
Oxford	42	8	2	4,204.19	1,440.00	44	5	2	2,845.28	1,494.19

APPENDIX

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Palmira.....	79	17	4	3,837.00	2,863.00	26	66	78	21	5	4,596.23	3,652.00	21	26	31
Pardeeville.....	77	11	4	5,633.66	2,820.00	83	83	15	4	5,739.93	3,082.50	22
Park Falls.....	115	12	8	6,973.16	4,824.72	34	46	120	10	7	8,500.00	5,041.84	.....	36	7	.....
Patch Grove.....	32	6	3	4,704.45	2,265.00	8	21	19	1	3	4,598.06	2,850.00	.....	9	.....	.....
Peplin.....	49	10	3	2,205.58	2,000.00	.....	.....	57	5	.....	3,741.44	2,222.50	.....	.....	.....	.....
Peshigo.....	118	25	6	5,840.94	4,470.50	.....	40	69	21	5	5,449.96	4,258.00	.....	.....	42	24
Pewaukee.....	36	6	4	3,000.00	2,697.14	18	22	35	10	4	3,300.00	2,789.24	.....	17	23	.....
Phillips.....	104	15	7	5,000.00	4,942.51	26	57	111	12	7	7,000.00	5,343.00	30	36	.....	20
Pittsville.....	27	5	2	1,700.00	1,807.25	.....	.....	29	5	2	1,983.19	1,260.00	.....	.....	.....	.....
Plainfield.....	74	13	5	4,354.00	3,461.12	23	43	79	11	.....	4,500.00	3,408.10	.....	.....	.....	30
Platteville.....	165	31	10	3,253.52	7,010.30	35	27	141	21	9	14,970.00	7,763.75	33	27	.....	.....
Plymouth.....	281	62	12	13,500.00	9,133.00	64	90	295	51	13	13,200.00	8,027.00	53	53	.....	.....
Portage.....	216	40	12	16,750.00	10,760.00	22	39	247	86	10	18,923.85	8,297.23	32	28	.....	66
Port Washington.....	127	14	8	6,760.00	6,060.00	37	36	121	22	.....	8,354.21	6,075.00	34	32	.....	.....
Port Wing.....	16	.....	2	1,413.14	1,170.00	.....	.....	26	4	2	1,740.72	1,440.00	.....	.....	.....	.....
Potosi.....	42	7	2	2,264.00	1,565.00	.....	.....	40	6	2	2,000.00	1,585.00	.....	.....	.....	.....
Poynette.....	78	10	4	3,850.00	2,966.50	31	.....	62	94	4	4,130.00	2,793.75	.....	23	.....	.....
Prairie du Chien.....	184	22	7	5,500.00	4,792.50	.....	.....	140	70	9	8,000.00	4,683.50	32	47	.....	81
Prairie du Sac.....	86	16	5	5,964.25	3,856.25	26	39	72	12	5	8,067.45	4,538.00	25	25	34	26
Prentice.....	46	9	3	3,000.00	1,525.00	.....	.....	45	5	2	3,500.00	1,516.70	.....	.....	.....	.....
Prescott.....	50	11	4	3,830.00	3,205.00	7	.....	51	12	3	3,278.00	2,595.00	8	.....	.....	.....
Princeton.....	92	15	5	4,294.40	3,603.00	.....	.....	105	13	6	4,041.50	2,970.54	53	53	.....	52
Racine.....	1,018	130	43	58,595.67	41,002.28	192	315	963	112	33	48,963.58	27,879.60	216	284	.....	120
Randolph.....	79	14	4	4,118.50	2,719.00	31	.....	94	17	6	6,150.00	3,412.25	.....	29	.....	80
Ransom Lake.....	48	7	3	2,820.00	2,202.75	.....	.....	17	6	4	6,500.00	2,624.00	.....	.....	.....	21
Redgranite.....	42	5	4	3,300.00	2,075.00	.....	.....	44	5	4	3,000.00	2,087.50	.....	.....	.....	.....
Reedsburg.....	179	37	11	12,440.00	9,812.50	25	.....	220	38	12	12,000.00	9,730.48	24	28	.....	35
Reedsville.....	33	.....	2	1,570.00	1,550.00	.....	.....	41	7	.....	2,375.00	1,579.50	.....	.....	.....	.....
Reeseville.....	39	.....	3	2,827.50	2,169.16	.....	16	41	11	3	2,650.00	2,880.50	.....	.....	.....	24
Rewey.....	37	10	3	4,750.00	2,065.50	.....	.....	51	6	.....	4,574.50	2,094.37	.....	.....	.....	.....
Rhinelander.....	281	51	14	14,382.48	9,111.50	19	70	112	38	13	15,920.11	9,859.44	20	95	.....	125
Rib Lake.....	59	12	4	3,140.10	2,220.00	58	.....	50	13	.....	3,412.00	2,632.00	14	.....	.....	.....
Rice Lake.....	194	26	12	9,500.00	7,639.50	29	57	321	20	12	10,500.00	8,143.51	23	75	.....	82
Richland Center.....	260	47	14	15,216.38	8,561.38	104	54	252	56	15	9,883.24	9,883.24	46	36	60	.....
Ridgeway.....	33	4	2	4,000.00	1,372.50	.....	.....	47	8	2	3,995.00	1,470.01	.....	.....	.....	.....
Rio.....	87	16	4	3,472.13	2,567.50	27	58	96	16	4	4,558.58	2,720.90	.....	33	40	.....
Ripon.....	175	32	10	11,420.22	7,090.76	31	40	101	51	14	11,624.16	6,902.21	32	.....	.....	37
River Falls.....	137	26	10	17,781.63	5,877.00	.....	.....	150	22	10	12,364.00	5,718.75	34	35	15	68
Roberts.....	42	9	4	6,483.00	3,570.00	18	22	46	5	4	5,100.00	3,615.00	.....	13	28	.....
Rosendale.....	39	5	3	2,475.00	2,047.50	.....	.....	44	12	.....	2,412.32	1,980.00	.....	.....	.....	.....
St. Croix Falls.....	117	20	8	10,000.00	6,045.00	19	29	126	23	8	10,000.00	6,173.00	18	33	46	39
Sauk City.....	75	15	6	5,575.00	4,027.50	24	27	78	18	6	5,886.00	4,268.25	30	29	.....	49
Saxon.....	23	1	3	3,400.00	1,975.00	.....	.....	23	3	4	4,000.00	2,102.00	.....	.....	.....	.....
Schlesinger ville.....	24	3	3	2,600.00	2,057.00	15	5	29	4	3	3,028.79	2,197.00	.....	.....	.....	19
Seneca.....	36	4	3	2,817.67	2,070.00	.....	.....	36	4	.....	2,606.19	2,170.00	.....	.....	.....	.....

Palmyra	79	17	4	5,837.00	26	78	21	5	4,598.23	8,852.00	21	26
Pardeeville	77	11	4	5,633.66		66		83	15	4	5,739.93	36
Park Falls	115	12	8	6,973.16	34	46		120	7	8,500.00	9	7
Patch Grove	32	6	3	4,704.45		21		19	1	4,569.66	2,850.00	
Pepin	49	10	3	2,205.53				57	5	8	8,741.44	
Peshigo	118	25	6	5,840.94		40	69	115	5	5	5,449.96	42
Pewaukee	36	6	4	3,000.00		13	22	89	10	4	3,300.00	17
Phillips	104	15	7	5,000.00	28	37		111	12	7	7,000.00	30
Pittsville	27	5	2	1,700.00		1,907.25		29	2	2	1,983.19	
Plainfield	74	13	4	4,354.00		23	43	109	11	5	4,500.00	22
Platteville	165	31	10	3,253.52	85	27		141	21	9	14,970.00	33
Plymouth	281	62	12	13,500.00	64	90		295	51	13	15,200.00	83
Portage	216	40	12	16,750.00	22	39		247	86	10	16,825.55	51
Port Washington	137	14	8	6,760.00	37	36		121	22	8	8,354.21	32
Port Wing	16	2	2	1,413.14				26	4	2	1,740.72	84
Potosi	42	7	2	2,264.00				40	6	2	2,000.00	
Poyntette	76	10	4	3,850.00		31		62	17	6	4,150.00	28
Prairie du Chien	184	22	7	5,500.00				94	20	6	8,000.00	81
Prairie du Sac	88	16	5	5,964.25	26	39	36	72	12	5	9,087.85	26
Prentice	46	9	3	3,000.00		1,525.00		45	5	2	3,500.00	34
Prescott	50	11	4	3,830.00	8			51	12	3	3,278.00	
Princeton	82	15	4	4,294.40	40	29	43	105	15	6	6,047.50	58
Racine	1,018	130	43	58,595.67	192	315	328	983	112	33	48,638.53	204
Randolph	79	14	4	4,113.50	31		17	64	17	6	6,150.00	29
Random Lake	48	7	3	2,820.00				45	6	4	6,500.00	21
Redgranite	42	5	4	3,300.00				44	5	4	3,000.00	
Redsburg	176	37	11	12,440.00	25	30	68	220	38	12	12,000.00	24
Reedsville	43	7	3	1,570.00				21	7	2	1,875.00	
Reeseville	36	1	5	2,827.50		16		51	11	3	2,950.00	
Rewey	37	10	3	4,750.00				51	6	3	4,574.50	
Rhineland	231	51	14	14,382.48	19	70	112	288	42	13	15,920.11	95
Rice Lake	59	12	4	3,140.10	38			56	13	4	3,412.00	20
River Falls	194	26	12	9,500.00	29	57	55	221	20	12	10,500.00	14
Richland Center	260	47	14	15,218.38	8,581.35	104	54	253	36	13	8,148.51	23
Ridgeway	83	4	2	4,000.00		1,372.50		47	3	2	3,965.00	86
Rio	37	16	4	3,473.13	27	58		96	16	4	4,553.53	33
Ripon	175	32	10	11,420.22	31	40	43	101	51	14	11,624.16	32
River Falls	137	26	10	17,781.63				159	22	10	12,364.00	38
Roberts	42	9	4	6,483.00	18	22		46	5	4	5,100.00	35
Rosendale	39	5	3	2,475.00				46	12	3	2,412.32	
											1,980.00	
St. Croix Falls	117	20	8	10,000.00	19	29	24	126	28	8	10,000.00	18
Sauk City	75	15	6	5,575.00	4,027.50	24		78	13	6	5,886.00	39
Saxon	23	1	3	3,400.00	1,975.00	15		23	3	4	4,000.00	49
Schellsingerville	29	3	3	2,600.00	2,057.00	5	26	36	4	3	3,028.79	19
Seneca	34	6	3	2,817.67	2,070.00			39	4	3	2,606.19	

TABLE 45.—*Census Enrollment, No. of Schools and Teachers—Counties 1916-17.*

County	School census, June 30, 1916	ENROLLMENT				PERCENTAGE		NUMBER OF SCHOOLS				No. schools closed, children attending other districts	No. private schools	Total teachers
		Total	Rural	State Graded	Grades below H. S.	Free High Schools	Pub. S. Enrol. of Census	All Sch. Enrol. of Census	Rural	State Graded 1st class	State Graded 2nd class	Free High School		
Totals.....	467,586	273,550	160,135	50,086	43,376	19,983	58	63	6,661	242	421	272	474	10,798
Adams.....	3,182	2,046	1,650	239	103	54	64	62	82	1	1	1	0	96
Ashland.....	3,462	1,627	989	569	.....	.....	47	62	48	3	3	2	5	78
Barron.....	10,480	6,584	3,879	1,087	1,179	439	69	63	129	12	22	2	2	220
Bayfield.....	4,981	3,045	1,866	1,949	544	190	61	62	72	7	4	4	2	132
Brown.....	9,752	4,598	2,207	1,975	326	90	46	.....	58	4	22	2	.....	133
Buffalo.....	5,484	3,287	2,073	379	552	283	60	62	83	1	5	4	5	132
Burnett.....	2,225	1,406	560	167	167	92	62	.....	73	1	8	1	3	104
Calumet.....	5,881	2,552	1,495	195	545	317	43	63	60	1	1	4	19	103
Chippewa.....	8,126	4,734	3,341	441	726	226	58	64	181	1	6	5	4	185
Clark.....	12,014	7,284	4,119	920	1,585	660	61	64	140	4	8	8	19	255
Columbia.....	7,042	5,196	2,738	353	1,452	653	74	.....	180	1	5	8	1	219
Crawford.....	4,588	3,041	1,918	717	283	113	66	70	93	4	5	3	6	136
Dane, First Dist.....	7,429	4,267	2,629	806	404	428	57	62	111	5	7	6	5	182
Dane, Second Dist.....	7,089	4,049	2,135	909	523	482	57	55	108	3	7	7	23	183
Dodge.....	10,778	5,247	3,541	557	815	334	50	54	177	3	5	5	45	232
Door.....	5,477	3,034	2,148	886	.....	.....	55	60	53	2	10	.....	3	80
Douglas.....	3,612	1,988	1,164	824	.....	.....	55	.....	71	5	7	.....	11	108
Dunn.....	7,567	4,716	3,465	661	456	134	62	.....	127	4	4	3	1	171
Eau Claire.....	5,028	3,017	1,880	245	580	212	60	77	82	1	2	3	7	122
Florence.....	1,124	826	299	139	289	99	74	.....	15	1	1	1	.....	39
Fond du Lac.....	8,796	4,504	3,293	185	755	261	51	61	156	1	2	5	23	200
Forest.....	2,979	2,121	1,453	729	744	165	71	72	166	3	3	3	2	85
Grant.....	10,656	7,142	3,718	745	1,682	997	68	74	197	6	3	14	10	342
Green.....	4,844	3,804	2,486	104	514	200	68	70	119	1	1	5	2	156
Green Lake.....	3,549	3,137	1,177	265	482	213	60	.....	63	1	3	3	.....	98
Iowa.....	5,893	3,991	2,247	231	1,014	499	68	70	126	3	.....	8	2	204
Iron.....	2,270	1,880	945	313	1,434	180	76	.....	19	2	2	3	1	80
Jackson.....	6,048	3,800	2,141	610	629	420	63	.....	91	2	6	6	1	157
Jefferson.....	6,245	3,334	2,424	328	356	226	53	62	113	1	6	4	9	157
Juneau.....	5,442	4,201	2,118	203	1,346	534	65	68	102	1	3	6	2	186

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Kenosha.....	3,553	1,818	1,247	523	48	51	53	54	1	8	1	5	7
Keweenaw.....	5,909	2,183	499	285	60	75	40	2	2	6	2	6	8
La Crosse.....	4,008	1,663	203	187	59	65	65	3	3	3	1	6	9
Lafayette.....	6,176	2,098	588	584	68	71	112	3	3	2	2	1	199
Langlade.....	4,598	1,810	885	584	55	71	72	4	7	2	3	7	103
Lincoln.....	3,274	1,012	432	19	59	62	67	1	3	1	3	85	144
Manitowoc.....	4,590	1,747	599	399	48	87	97	2	8	1	9	171	272
Marathon.....	8,643	3,265	1,188	289	50	58	197	6	4	1	26	99	171
Marquette.....	7,409	4,548	2,369	149	61	78	96	7	7	2	8	171	99
Marquette.....	3,589	1,200	863	211	78	78	54	8	2	2	8	99	99
Milwaukee.....	11,832	1,306	3,802	12	62	45	40	15	11	1	21	155	235
Monroe.....	5,197	2,204	1,508	71	44	71	135	1	5	1	5	151	151
Oconto.....	5,066	2,746	1,317	279	50	60	71	4	12	4	6	73	73
Oneida.....	2,561	1,893	537	59	56	67	51	4	2	1	1	164	164
Outagamie.....	10,243	3,333	634	216	58	47	119	4	4	4	10	150	150
Ozaukee.....	5,315	1,185	215	254	52	61	51	3	3	3	18	103	103
Pepin.....	2,525	1,933	195	156	45	70	83	1	1	4	64	64	64
Pierce.....	6,252	3,897	2,439	668	62	64	101	2	4	4	2	156	156
Polk.....	9,607	6,708	2,873	562	65	65	90	1	2	2	2	211	211
Portage.....	8,965	3,707	985	135	65	65	118	2	2	15	15	150	150
Price.....	4,721	2,928	954	72	61	76	76	5	6	1	118	118	118
Racine.....	5,061	2,623	1,357	139	52	55	59	2	6	4	104	104	104
Richland.....	6,379	4,674	2,854	409	75	116	116	4	4	2	186	186	186
Rock.....	4,584	2,872	1,177	216	60	66	148	8	4	2	189	189	189
Rusk.....	6,550	2,835	746	127	62	66	73	4	5	2	121	121	121
St. Croix.....	7,709	4,718	890	597	61	112	112	4	5	5	194	194	194
Sauk.....	7,563	2,915	773	453	62	68	146	4	6	3	207	207	207
Sawyer.....	2,013	997	306	280	50	48	48	1	4	2	61	61	61
Shawano.....	11,440	7,178	3,598	768	50	66	105	7	10	6	205	205	205
Sheboygan.....	9,178	5,272	1,743	63	53	64	86	4	17	10	199	199	199
Taylor.....	3,844	1,985	752	279	63	67	78	4	5	2	143	143	143
Trempealeau.....	8,124	4,755	2,823	984	63	105	105	7	1	5	186	186	186
Vernon.....	9,095	5,726	778	785	43	142	142	4	2	2	209	209	209
Vilas.....	1,658	1,004	349	62	60	68	95	1	5	4	47	47	47
Walworth.....	6,078	4,071	1,942	474	68	68	98	2	2	2	185	185	185
Washington.....	3,549	2,526	1,217	262	71	63	87	1	4	5	115	115	115
Waushara.....	7,557	3,608	1,656	386	47	82	82	4	4	2	27	27	27
Waupaca.....	7,757	4,450	2,523	580	57	69	95	2	2	2	165	165	165
Waupesa.....	8,194	5,139	2,045	432	63	73	117	3	6	2	25	25	25
Waushara.....	6,216	4,226	1,105	304	68	73	97	1	5	5	16	16	16
Waushara.....	4,226	2,437	1,105	304	68	73	97	1	5	5	16	16	16
Winnebago.....	4,782	2,676	1,831	323	56	63	88	1	4	7	123	123	123
Winnebago.....	4,782	2,676	1,831	323	56	63	88	1	4	7	123	123	123
Wood.....	7,653	4,031	2,548	443	58	63	90	1	5	10	170	170	170

TABLE 46.—School Finances—Counties—1916-1917

County	EXPENDITURES				RECEIPTS			
	Rural	State Graded	Free High Schools and Grades	Town and Union High Schools	Rural	State Graded	Free High Schools and Grades	Town and Union High Schools
Totals.....	\$4,488,618.48	\$2,135,900.47	\$3,200,094.11	\$245,064.78	\$6,145,255.64	\$2,562,956.82	\$3,610,778.52	\$330,333.80
Adams	\$39,836.44	\$12,060.86	\$7,686.03	\$3,235.91	\$54,344.26	\$14,583.85	\$7,728.69	\$9,234.67
Ashtand	26,069.26	32,003.12	90,014.87	2,394.84	40,518.65	37,914.62	105,648.00	3,451.52
Barron	92,154.70	29,306.13	27,067.61	2,394.84	134,165.84	74,794.15	40,932.49	47,294.18
Bayfield	56,389.67	67,643.77	47,041.79	3,279.10	81,977.37	106,323.09	39,353.49	4,412.40
Brown	51,691.09	97,155.01	34,697.70	3,279.10	67,546.30	14,143.49	18,881.06	15,241.46
Buffalo	42,285.43	11,058.96	9,964.00	3,279.10	55,837.37	19,096.13	87,591.18	69,117.97
Burnett	46,563.33	17,559.09	43,891.38	3,824.47	65,561.43	25,425.51	116,557.12	4,781.69
Calumet	34,972.97	16,348.08	62,291.39	3,824.47	52,956.94	33,648.15	134,313.29	4,225.65
Chippewa	80,722.89	21,612.00	108,160.18	3,824.47	132,269.90	45,606.77	16,408.49	19,454.85
Clark	113,950.17	29,282.98	124,554.94	2,820.19	159,161.88	31,686.91	54,646.99	13,890.67
Columbia	68,810.32	11,065.57	16,186.29	13,026.32	85,253.11	21,065.14	60,646.60	32,744.35
Crawford	43,551.09	23,497.98	35,672.55	8,902.88	55,690.14	13,672.47	25,722.13	38,473.55
Dane, First District.....	81,619.04	26,983.92	42,358.87	2,267.63	100,428.11	31,686.91	23,848.96	7,658.64
Dane, Second District.....	70,131.22	34,675.66	54,098.99	3,548.11	89,647.00	53,986.79	123,401.46	29,621.33
Dodge	105,772.75	18,869.93	28,419.00	26,640.92	137,798.27	45,606.77	41,850.33	8,228.90
Door	39,890.39	28,607.79	13,746.02	7,804.94	137,798.27	21,065.14	35,119.53	5,838.03
Douglas	93,746.19	32,336.81	51,700.99	3,548.11	137,964.43	32,744.35	57,222.30	5,773.95
Dunn	68,103.35	20,155.01	24,527.54	26,640.92	95,896.13	22,451.28	49,758.68	29,621.33
Fau Claire	54,143.20	30,538.54	28,419.00	2,267.63	77,251.98	33,902.23	123,401.46	3,228.90
Florence	9,308.59	7,060.64	13,746.02	7,804.94	11,019.13	14,467.01	35,119.53	5,838.03
Fond du Lac.....	93,269.80	6,569.66	51,700.99	3,548.11	121,975.94	7,658.64	57,222.30	5,773.95
Forest	23,690.78	49,080.62	36,944.15	26,640.92	37,897.32	53,986.79	123,401.46	29,621.33
Grant	116,000.86	31,929.74	101,516.92	2,267.63	148,148.46	36,006.98	41,850.33	8,228.90
Green	76,678.85	3,833.79	36,099.51	31,576.00	86,819.22	5,175.19	35,119.53	5,838.03
Green Lake	36,939.16	8,252.53	31,576.00	3,736.10	48,354.01	10,644.09	79,540.22	5,838.03
Iowa	74,661.22	8,039.03	76,054.07	3,736.10	88,590.73	10,052.44	81,117.15	27,610.48
Iron	8,401.40	18,656.23	66,890.46	6,833.34	15,301.46	29,096.55	56,146.77	3,228.90
Jackson	49,561.70	18,257.36	53,669.53	23,239.31	72,490.24	11,850.69	68,117.91	5,838.03
Jefferson	55,847.09	11,708.06	33,052.34	80,096.87	85,035.89	16,850.69	95,090.74	5,838.03
Juneau	58,239.78	6,989.31	80,096.87	80,096.87	73,792.04	8,431.61	95,090.74	5,838.03

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Kenosha	49,419.15	22,979.11	3,477.26	64,304.57	31,110.06	45,085.28	5,587.19
Kewaunee	37,257.72	16,478.95	43,012.62	47,945.47	17,953.12	22,155.25
La Crosse	36,780.42	8,389.74	81,451.91	2,884.67	58,219.19	8,646.59	.....	82,965.14	2,884.67
Lafayette	94,022.15	13,690.24	90,072.49	4,226.53	79,940.79	17,925.16	.....	.....	5,840.72
Langlade	75,077.10	38,202.56	.....	.....	107,742.78	46,388.84	.....	.....	.....
Lincoln	48,175.65	19,680.07	.....	7,400.08	74,892.57	22,125.09	.....	9,084.14	.....
Manitowoc	79,419.55	23,063.74	31,584.31	.....	104,858.36	26,669.19	34,674.73	.....	.....
Marathon	142,463.89	53,710.89	45,584.85	2,707.39	217,907.33	41,176.83	45,979.67	3,301.92	.....
Marquette	66,321.86	63,747.63	26,186.84	10,914.82	96,483.56	77,497.58	32,306.65	16,296.94	.....
Marquette	24,686.27	13,156.67	30,077.51	4,289.49	29,910.06	14,830.77	31,584.11	4,884.61	.....
Milwaukee	53,963.67	215,679.17	2,990.31	.....	74,824.69	322,010.15	3,082.14	.....	.....
Monroe	75,012.74	19,869.04	91,241.50	.....	98,703.80	21,791.42	104,876.99	.....	.....
Oconto	57,596.89	39,601.62	44,275.84	2,846.49	96,118.51	47,168.96	44,869.21	4,206.23	.....
Oneida	27,831.49	39,203.02	41,918.81	4,863.81	41,918.81	42,830.52	.....	5,066.05	.....
Outagamie	116,968.02	28,787.79	23,715.48	5,208.77	151,858.74	31,950.13	31,306.09	5,867.87	.....
Ozaukee	30,346.31	8,769.75	53,901.38	.....	38,958.16	10,350.46	.....	.....	.....
Pepin	21,531.07	5,307.36	21,083.76	.....	28,271.64	5,897.39	24,869.39	.....	.....
Pierce	57,291.91	30,211.43	46,527.94	.....	79,840.79	31,688.59	52,105.31	.....	.....
Polk	69,513.46	96,027.93	67,206.71	11,563.01	100,831.07	102,798.39	85,744.77	.....	12,162.79
Portage	74,333.96	32,111.67	14,940.31	.....	112,522.96	34,013.61	16,078.50	.....	.....
Price	50,850.15	46,688.11	7,255.21	1,815.85	84,852.41	64,457.78	8,567.46	2,417.07	.....
Racine	41,588.18	44,766.07	14,392.14	.....	64,512.17	59,581.20	16,364.83	.....	.....
Richland	95,152.38	16,242.39	69,233.40	.....	115,815.87	17,947.08	71,300.92	.....	.....
Rock	104,679.23	23,562.38	7,753.99	10,202.50	135,978.59	33,195.40	11,315.66	17,294.71	.....
Rusk	65,257.45	36,397.84	21,030.44	19,037.42	90,015.07	44,006.66	21,520.86	19,791.29	.....
St. Croix	73,462.06	29,257.83	100,371.67	8,944.44	95,962.67	32,504.56	100,957.53	8,944.44	.....
Sauk	88,127.16	29,031.61	45,952.30	.....	112,238.44	33,976.41	48,762.66	.....	.....
Sawyer	45,238.09	13,132.48	69,233.40	.....	33,195.40	21,441.83	.....	.....	.....
Shawano	99,107.51	52,318.53	167,719.95	1,794.04	145,753.86	59,893.51	174,119.51	1,794.04	.....
Sheboygan	60,114.75	61,515.55	95,212.65	.....	76,428.56	68,583.80	104,948.45	.....	.....
Taylor	61,554.69	21,570.20	24,884.07	.....	94,403.23	26,678.22	49,064.49	.....	.....
Traverse	58,722.75	11,986.78	109,676.71	.....	81,501.76	12,947.48	114,192.62	.....	.....
Vernon	77,273.16	23,579.03	48,448.35	.....	99,364.86	26,508.82	52,250.04	4,905.54	.....
Vilas	43,336.19	8,690.86	.....	3,178.98	58,016.12	14,329.62	.....	.....	.....
Walworth	72,956.77	23,609.90	154,067.97	.....	98,666.56	27,276.36	167,747.61	.....	.....
Waubesa	42,568.56	9,464.57	51,320.97	.....	64,965.25	9,494.11	82,270.32	.....	.....
Washington	52,791.95	14,374.04	78,654.89	.....	63,686.36	20,008.55	90,843.66	.....	.....
Waushara	69,373.93	38,298.73	39,060.89	.....	91,820.29	44,704.21	46,794.69	.....	.....
Waupaca	83,919.51	67,620.83	44,144.76	8,743.08	109,274.19	72,897.80	44,807.25	36,186.22	.....
Waushara	54,052.87	9,065.23	60,249.06	.....	66,201.59	10,688.35	69,484.43	.....	.....
Winnebago	54,597.41	10,588.32	26,189.57	.....	70,364.24	12,079.69	37,207.15	.....	.....
Wood	38,997.27	38,506.62	23,492.59	.....	97,303.89	40,856.55	28,208.15	.....	.....

TABLE 47.—Census—Enrollment—No. of Schools and Teachers—Counties—1917-1918.

County	School census, June 30, 1917	ENROLLMENT				Percent- age of enroll- ment to census	NUMBER OF SCHOOLS				No. schools closed, chil- dren attend- ing other districts	No. private schools or parochial	Total teach- ers
		Total	Rural	State Graded	Grades below High Schools	Free High Schools	Rural	State Graded 1st class	State Graded 2nd class	Free High School			
Totals.....	469,231	269,873	158,478	48,282	43,195	19,918	6,642	233	400	286	109	520	10,911
Adams.....	3,198	1,956	1,558	234	104	60	83	1	1	1	0	0	97
Ashland.....	3,507	1,620	896	504	0	77	47	3	3	2	1	2	77
Barnett.....	10,774	6,650	3,896	1,102	1,166	416	128	13	23	23	1	2	225
Bayfield.....	5,071	2,184	1,558	1,892	513	181	73	7	7	2	1	2	136
Brown.....	9,963	4,394	2,089	1,892	316	97	58	3	23	2	2	19	133
Buffalo.....	5,345	3,204	1,124	372	519	279	83	1	5	4	5	10	131
Burnett.....	3,647	2,205	1,293	491	288	127	75	1	8	2	1	1	103
Calumet.....	5,783	1,578	1,578	186	507	270	61	1	1	4	1	20	104
Chippewa.....	3,068	4,545	3,339	217	744	245	133	1	5	6	2	0	189
Clark.....	12,166	7,206	3,986	866	1,587	737	138	4	8	10	1	0	261
Columbia.....	6,916	5,042	2,536	368	1,456	682	130	1	5	8	1	7	227
Crawford.....	4,539	2,912	1,888	648	259	117	84	4	4	1	1	1	137
Dane, First Dist.....	7,472	4,241	2,633	767	379	450	110	5	7	2	3	5	179
Dane, Second Dist.....	6,980	3,990	2,090	618	777	484	110	2	6	1	1	8	156
Dodge.....	10,821	5,234	3,539	515	849	331	177	3	5	1	8	43	236
Door.....	5,500	3,024	983	.....	.....	.....	52	2	11	.....	.....	5	81
Douglas.....	2,592	1,972	1,226	679	61	6	78	4	6	.....	1	1	113
Dunn.....	7,477	4,664	3,537	752	489	136	126	5	4	1	1	1	174
Fau Claire.....	4,995	2,946	2,046	200	526	174	83	1	1	1	2	8	121
Florence.....	1,137	810	341	115	255	99	17	1	1	1	.....	.....	40
Fond du Lac.....	8,836	4,534	3,243	256	773	262	152	1	3	5	1	25	199
Forest.....	3,098	2,127	1,417	442	1,054	214	28	2	3	4	1	1	91
Grant.....	10,543	6,864	3,634	709	1,546	995	198	6	3	14	.....	.....	340
Green.....	4,875	3,374	2,524	108	525	217	120	1	1	.....	1	.....	157
Green Lake.....	3,481	2,091	1,163	252	455	222	64	1	3	3	.....	3	99
Iowa.....	5,860	3,513	2,180	298	664	371	125	4	.....	8	4	1	204
Iron.....	3,179	2,090	1,207	265	1,456	162	19	2	2	3	.....	2	84
Jackson.....	5,848	3,780	2,179	526	631	404	63	3	3	6	2	1	157
Jefferson.....	6,182	3,398	2,462	332	374	230	115	2	3	3	2	20	159
Juneau.....	6,274	4,086	2,081	158	1,312	533	103	1	2	6	4	2	185

Kenosha.....	3,552	1,741	1,267	426	507	48	49	55	1	7	.....	1	.....	.....	5	77
Kewaunee.....	2,762	3,493	1,992	499	507	308	57	40	2	6	.....	.....	.....	.....	8	102
La Crosse.....	4,103	2,336	1,601	224	304	207	57	66	1	2	.....	.....	.....	.....	7	96
Lafayette.....	4,136	2,056	2,056	553	1,047	524	57	111	3	3	.....	.....	.....	.....	1	195
Lansdale.....	4,762	2,840	1,821	1,002	.....	17	60	72	5	6	.....	.....	.....	.....	.....	106
Lincoln.....	3,523	1,939	1,508	464	.....	17	56	67	3	3	.....	.....	.....	.....	6	86
Manitowoc.....	9,538	4,466	3,146	702	.....	207	49	97	3	2	.....	.....	.....	.....	21	145
Marathon.....	17,730	8,911	6,781	1,162	411	308	50	193	6	5	.....	.....	.....	.....	40	277
Marquette.....	7,279	2,439	2,439	1,509	463	131	62	104	5	6	.....	.....	.....	.....	.....	182
Marquette.....	3,489	2,223	1,196	370	443	214	64	54	3	2	.....	.....	.....	.....	6	97
Milwaukee.....	12,406	5,397	1,271	4,126	.....	.....	43	40	16	11	.....	.....	.....	.....	13	161
Monroe.....	9,058	5,784	3,192	390	1,492	710	64	135	4	5	.....	.....	.....	.....	6	235
Oconto.....	8,751	5,166	2,743	1,368	70	263	59	79	4	14	.....	.....	.....	.....	4	154
Oncida.....	2,483	1,304	759	545	.....	.....	52	53	4	3	.....	.....	.....	.....	2	77
Outagamie.....	10,398	4,445	3,211	552	399	283	43	118	3	4	.....	.....	.....	.....	15	167
Ozaukee.....	5,267	2,453	1,193	227	783	250	47	50	1	3	.....	.....	.....	.....	1	90
Peplin.....	2,458	1,513	890	188	251	184	62	38	2	1	.....	.....	.....	.....	2	65
Pierce.....	6,190	3,827	2,403	1,644	655	343	62	101	2	4	.....	.....	.....	.....	2	157
Polk.....	9,426	6,227	2,894	1,644	1,069	620	66	93	4	22	.....	.....	.....	.....	3	211
Portage.....	8,890	4,633	3,685	565	1,258	125	52	116	3	4	.....	.....	.....	.....	22	152
Price.....	4,752	2,900	1,750	804	274	72	61	78	6	5	.....	.....	.....	.....	.....	117
Racine.....	5,163	2,624	1,379	1,101	.....	144	51	60	6	5	.....	.....	.....	.....	3	102
Richland.....	6,362	4,538	2,689	549	912	388	71	115	3	4	.....	.....	.....	.....	1	188
Rock.....	6,521	3,885	2,836	660	163	226	60	149	4	5	.....	.....	.....	.....	2	191
Rusk.....	4,701	2,862	1,732	702	294	134	61	77	4	5	.....	.....	.....	.....	1	125
St. Croix.....	7,545	4,611	2,511	814	690	596	61	113	5	6	.....	.....	.....	.....	2	194
Sauk.....	7,429	4,321	2,908	686	489	238	58	150	4	5	.....	.....	.....	.....	8	207
Sawyer.....	2,313	1,132	787	345	.....	.....	49	50	1	4	.....	.....	.....	.....	.....	65
Shawano.....	11,505	6,817	3,526	1,746	1,080	465	59	104	9	9	.....	.....	.....	.....	25	208
Sheboygan.....	9,001	5,104	2,116	1,253	1,147	588	57	85	3	18	.....	.....	.....	.....	17	201
Taylor.....	6,229	3,871	1,908	601	1,068	294	62	80	3	3	.....	.....	.....	.....	1	145
Trempealeau.....	8,172	4,675	2,804	260	1,074	537	57	104	2	1	.....	.....	.....	.....	5	187
Vernon.....	9,085	5,538	3,853	737	730	218	61	143	5	4	.....	.....	.....	.....	1	213
Vilas.....	1,753	1,152	598	488	.....	66	66	30	2	2	.....	.....	.....	.....	.....	47
Walworth.....	6,062	4,097	1,926	368	1,292	511	67	98	2	5	.....	.....	.....	.....	1	187
Washington.....	3,624	2,454	1,221	163	843	230	68	69	.....	3	.....	.....	.....	.....	.....	115
Washington.....	7,619	3,559	1,660	460	1,055	334	47	81	.....	8	.....	.....	.....	.....	28	152
Waushara.....	7,847	4,402	2,454	1,050	626	272	56	94	4	12	.....	.....	.....	.....	2	156
Waupaca.....	8,932	5,381	3,054	1,129	755	443	60	118	8	4	.....	.....	.....	.....	2	197
Waushara.....	6,005	3,982	2,276	329	946	431	66	97	1	4	.....	.....	.....	.....	21	164
Winnebago.....	4,806	2,723	1,942	268	294	219	57	88	1	4	.....	.....	.....	.....	7	123
Wood.....	7,507	3,921	2,451	961	432	77	52	91	5	7	.....	.....	.....	.....	12	144

TABLE 48.—School Finances—Counties—1917-18

County	EXPENDITURES				RECEIPTS			
	Rural	State Graded	Free High Schools and Grades	Town and Union High Schools	Rural	State Graded	Free High Schools and Grades	Town and Union High Schools
Totals.....	\$5,017,617.13	\$2,336,069.03	\$3,683,939.71	\$314,050.87	\$6,632,749.39	\$2,804,585.76	\$4,152,641.77	\$375,355.66
Adams	\$45,843.30	\$7,198.06	\$8,667.88	\$9,075.42	\$37,927.85	\$9,460.95	\$9,170.21	.....
Ashland	32,404.62	35,020.41	.....	.....	47,046.09	40,174.48	.....	\$9,910.33
Barron	96,511.59	35,068.99	95,477.44	2,573.42	135,678.72	89,802.32	126,110.42	.....
Bayfield	44,964.60	71,145.57	33,237.57	.....	81,006.00	81,333.10	45,556.02	4,780.83
Brown	65,316.09	127,332.37	34,070.97	.....	96,418.02	134,964.30	34,537.99	.....
Buffalo	45,032.68	12,502.48	30,503.41	2,987.43	58,761.33	15,230.17	33,392.61	3,966.12
Burnett	46,533.93	15,053.37	19,513.54	.....	66,265.61	16,919.54	20,555.14	.....
Calumet	42,135.89	13,019.42	47,012.87	.....	59,233.94	14,048.94	61,387.42	.....
Chippewa	102,098.17	11,303.74	66,463.59	.....	146,319.18	11,969.80	71,611.51	.....
Clark	114,434.09	31,237.80	143,243.27	4,775.63	156,342.79	38,322.66	156,907.20	5,162.22
Columbia	71,904.91	14,410.55	119,098.38	.....	89,123.60	16,551.63	123,103.64	.....
Crawford	48,552.19	29,930.32	22,668.86	2,706.19	63,690.17	26,177.22	22,782.52	4,201.96
Dane, 1st District.....	84,087.92	34,771.97	40,653.72	14,615.39	100,827.41	40,433.07	41,592.99	17,676.24
Dane, 2nd District.....	110,719.09	36,728.90	68,863.15	12,677.69	134,877.71	43,942.37	76,010.46	38,468.15
Dodge	116,802.24	21,009.49	54,926.40	.....	147,792.04	23,051.88	66,235.05	.....
Door	39,128.96	40,002.90	.....	.....	52,300.46	43,298.39	.....	.....
Douglas	124,492.11	37,042.90	.....	.....	172,993.62	43,216.04	.....	.....
Dunn	80,013.27	37,658.25	36,667.14	.....	106,375.30	40,963.89	36,746.51	.....
Eau Claire	52,256.41	12,496.02	34,371.97	.....	73,931.42	12,511.42	37,034.53	.....
Florence	14,972.75	6,533.41	21,966.36	11,228.85	9,824.46	12,331.03	25,870.31	15,766.76
Fond du Lac	111,231.48	15,735.94	44,523.59	.....	147,963.30	17,225.64	49,787.93	.....
Forest	26,931.42	26,791.91	211,594.47	8,511.41	32,058.35	32,719.96	234,147.05	5,725.94
Grant	130,937.27	29,903.41	116,425.87	28,311.35	163,462.56	34,713.24	183,066.97	29,953.12
Green	41,884.27	3,432.31	30,392.65	2,445.58	102,291.71	4,761.10	37,107.30	3,454.23
Green Lake	42,170.99	9,327.44	35,425.65	.....	52,768.72	11,769.23	38,503.00	.....
Iowa	90,734.83	18,329.15	76,968.31	7,344.90	96,686.79	16,493.83	76,933.94	8,999.99
Iron	7,913.22	150,245.80	150,245.80	5,456.60	13,691.36	31,455.68	155,339.23	7,315.06
Jackson	60,149.03	19,733.06	57,612.78	21,359.41	83,650.70	22,216.45	59,790.85	21,928.82
Jackson	66,714.50	10,514.11	49,855.35	.....	92,767.80	19,061.43	50,305.14	.....
Juneau	57,083.43	6,926.02	97,978.27	.....	72,896.24	7,750.29	111,131.52	.....

Kenosha	50,319.64	28,946.79	4,847.83	66,416.37	34,850.00	52,432.10	6,723.16
Kewaunee	41,319.10	36,963.24	2,457.09	50,765.21	38,242.06	103,274.70	2,457.09
La Crosse	48,856.53	6,456.31	96,224.89	61,827.30	7,321.78	86,708.10	5,207.03
Lafayette	66,760.92	13,979.51	83,602.60	86,133.53	18,637.21	.....	5,406.07
Langlade	76,981.14	65,067.65	.....	120,566.50	28,385.90	.....	.....
Lincoln	53,516.59	24,215.88	8,694.90	90,479.03	28,385.90	.....	8,694.90
Manitowoc	88,676.57	22,285.39	36,068.09	117,133.16	27,108.15	38,678.58	.....
Marathon	166,294.24	38,511.72	43,440.24	243,889.15	53,067.71	46,396.33	4,158.53
Marquette	96,496.59	138,331.63	24,962.37	122,223.37	164,696.76	.....	5,900.28
Marquette	25,780.42	12,570.17	31,347.12	30,963.05	14,836.11	32,736.30	3,789.12
Milwaukee	52,461.42	236,055.59	.....	70,446.19	343,254.07	.....	.....
Monroe	16,990.13	16,990.13	99,605.52	102,241.85	18,221.39	112,921.71	.....
Oconto	101,970.19	45,346.44	47,688.86	126,368.01	50,819.10	48,524.60	3,866.74
Oneida	61,725.78	17,431.25	3,827.04	68,377.19	25,934.99	.....	3,794.24
Outagamie	107,680.90	23,040.49	34,817.51	145,230.09	26,398.03	46,661.49	5,490.47
Ozaukee	38,487.67	9,735.78	55,126.35	45,272.31	11,346.49	62,440.67	.....
Pepin	20,924.21	6,317.95	19,820.95	27,149.61	6,361.93	24,682.69	.....
Pierce	56,776.37	23,635.23	52,477.31	80,894.24	25,286.02	59,894.12	.....
Polk	69,430.51	69,430.51	116,947.49	142,253.61	78,683.44	127,316.77	13,651.56
Portage	74,026.11	21,904.12	18,232.03	111,108.78	23,346.23	19,324.07	.....
Price	59,028.96	43,967.49	13,590.38	83,590.79	69,677.27	16,568.84	.....
Racine	45,009.34	49,297.52	18,247.25	59,026.35	64,669.68	.....	21,134.23
Richland	78,315.54	18,356.39	75,051.33	103,297.57	21,944.49	78,247.65	.....
Rock	98,406.13	30,010.11	9,729.86	132,408.04	36,553.40	13,002.74	18,906.71
Rusk	84,537.83	36,157.72	20,660.04	111,679.61	46,204.47	22,496.09	9,606.02
St. Croix	78,797.85	72,594.17	63,568.55	99,623.67	76,631.30	64,524.37	8,719.00
Sauk	95,459.69	23,228.53	53,515.39	117,962.11	28,817.47	56,122.01	.....
Sawyer	62,461.65	18,456.73	.....	71,422.75	28,653.57	.....	.....
Shawano	90,283.43	66,050.56	100,861.30	136,923.38	77,481.59	104,341.49	2,895.12
Sheboygan	72,347.91	61,361.93	99,845.91	87,126.40	69,066.42	105,893.52	.....
Taylor	72,262.06	17,318.32	56,224.96	108,543.41	21,351.31	62,992.98	.....
Templeau	60,047.62	8,949.31	105,789.00	84,092.47	9,584.03	112,801.95	.....
Vernon	87,495.26	23,814.13	53,265.21	109,619.24	26,103.81	56,345.21	.....
Vilas	37,440.50	25,652.19	.....	51,355.92	32,441.95	.....	6,279.73
Walworth	75,176.56	20,276.54	109,554.94	99,189.06	24,262.27	120,986.98	.....
Washington	47,438.50	10,794.32	76,208.24	68,661.82	11,068.92	78,114.74	.....
Washington	55,135.01	14,227.76	86,534.40	20,902.28	20,902.28	87,025.51	.....
Waukesha	84,622.55	39,614.04	44,519.79	113,334.83	46,236.30	51,426.92	.....
Waupaca	98,990.14	53,690.49	43,912.15	118,606.13	57,912.14	127,486.15	61,366.05
Waushara	64,083.60	10,779.87	60,671.51	81,700.00	11,783.60	71,747.15	.....
Winnebago	64,179.30	9,814.67	38,723.38	78,489.37	10,907.69	39,371.33	.....
Wood	62,308.30	40,865.64	24,153.81	91,883.25	41,380.72	33,868.24	.....

TABLE 49.—Census and Enrollment—No. of Teachers—Cities 1916-17.

Location	CENSUS			PERCENTAGE		ENROLLMENT						TEACHERS	
	Total 4-20	7 14	14-16	Public and parochial enroll. of census	Public School Enroll. of census	Total enrolled	Kinder- gartens	Grades	High schools	Evening schools	Schools for the industries and blind	Schools for deaf and blind	Total profes- sional workers in schools
Totals.....	335,485	144,973	37,696	55	73	183,064	21,655	129,896	31,082	5,561	963	491	5,905
Antigo.....	2,372	1,192	297	69	88	1,638	324	920	385	.....	.....	9	52
Appleton.....	5,683	2,491	680	49	77	2,748	504	1,742	489	.....	.....	13	112
Ashland.....	4,592	1,973	584	51	68	2,313	174	1,562	538	60	.....	9	69
Baraboo.....	1,456	754	200	77	86	1,126	51	755	320	.....	.....	.....	40
Beaver Dam.....	2,224	965	374	53	72	1,173	183	814	166	.....	.....	.....	36
Beloit.....	4,769	2,253	549	85	85	4,018	500	2,793	725	.....	.....	.....	114
Berlin.....	1,414	716	171	47	70	660	.....	517	143	.....	.....	.....	22
Bredhead.....	1,312	108	39	100	100	332	.....	231	101	.....	.....	.....	14
Burlington.....	1,115	539	131	56	83	693	98	363	172	.....	.....	.....	25
Chippewa Falls.....	2,956	1,258	369	46	74	1,847	.....	980	387	.....	.....	.....	51
Columbus.....	552	274	61	90	100	498	47	278	171	.....	.....	.....	21
Cudahy.....	1,799	869	246	44	77	788	125	663	.....	.....	.....	.....	20
De Pere.....	859	368	91	27	80	235	38	198	69	.....	.....	.....	12
Eau Claire.....	5,876	2,422	685	55	67	3,215	262	2,253	681	.....	.....	39	120
Edgerton.....	886	362	117	77	83	689	76	437	176	.....	.....	.....	27
Elkhorn.....	334	152	49	100	100	418	36	296	146	.....	.....	.....	18
Evansville.....	536	244	64	96	96	513	52	313	148	.....	.....	.....	19
Fond du Lac.....	5,698	2,553	639	67	79	3,892	697	2,629	577	.....	.....	16	118
Fort Atkinson.....	1,238	563	177	83	95	1,067	116	706	302	.....	.....	10	34
Grand Rapids.....	2,423	1,079	260	61	84	1,489	109	968	422	.....	.....	.....	58
Green Bay.....	9,126	4,251	1,100	50	74	4,517	120	3,460	884	.....	.....	53	147
Hayward.....	612	237	56	89	89	442	.....	355	87	.....	.....	.....	15
Horicon.....	817	427	68	77	77	476	57	314	105	.....	.....	.....	16
Hudson.....	817	362	112	82	97	665	62	492	181	.....	.....	.....	24
Janesville.....	3,419	1,456	437	69	77	2,861	274	1,517	570	.....	.....	.....	80
Jefferson.....	702	292	98	53	53	374	25	200	149	.....	.....	.....	21
Kaukauna.....	2,053	891	234	38	55	785	121	498	166	.....	.....	.....	30
Kenosha.....	3,821	4,169	961	57	78	5,068	713	3,770	589	.....	.....	16	144
La Crosse.....	9,250	3,831	1,067	56	76	5,176	486	3,651	869	.....	.....	8	154
Ladymith.....	1,166	552	135	65	80	763	67	561	145	.....	.....	.....	28
Lake Geneva.....	986	449	123	85	85	887	67	574	196	.....	.....	.....	32
Lake Mills.....	538	251	61	91	98	489	45	326	113	.....	.....	.....	17
Madison.....	8,767	3,934	968	61	77	5,320	488	3,719	1,068	.....	.....	15	210
Manitowoc.....	5,372	2,161	621	45	67	2,423	378	1,478	569	.....	.....	.....	77
Marquette.....	5,198	2,555	691	49	68	2,547	216	1,847	478	.....	.....	6	70

Marshfield	2,232	45	76	1,014	87	665	226	6	37
Mellen	693	84	84	579	76	422	81		16
Menasha	2,398	32	63	784	159	456	31		31
Menomonee	1,490	78	93	1,156	95	228	189		39
Merrill	2,902	52	71	1,498	221	948	839		53
Milwaukee	126,571	47	67	59,155	7,950	44,985	6,411	109	1,670
Mineral Point	721	79	96	378	96	353	21	7	
Monroe	1,248	88	93	1,47	148	729	214		21
Neeah	1,665	719	75	1,091	168	717	43		34
New London	1,219	53	88	1,164	59	426	151	10	23
Oconomowoc	797	80	91	641		455	186		24
Oconto	1,760	783	84	948	144	530	274		34
Onalaska	286	86	86	247		202	45		10
Oshkosh	9,856	1,143	76	5,339	951	3,447	927	14	168
Park Falls	741	91	91	671		556	115		21
Peshigo	516	79	97	500		380	120		16
Phillips	696	91	83	577	89	384	104		19
Platteville	1,324	621	61	829		655	165	9	30
Portage	1,621	587	50	806		589	217		29
Prairie du Chien	1,033	452	81	535		401	134		18
Racine	13,015	6,031	59	7,635	1,171	5,374	1,018	72	244
Reedsburg	742	363	106	616	157	392	197		24
Rhineland	2,383	1,021	326	1,371	198	897	281		41
Rice Lake	1,381	752	78	1,081	128	744	194	15	36
Ripon	1,029	485	129	854		670	176	8	32
River Falls	666	302	94	402	16	249	137		17
Sheboygan	9,150	4,005	51	4,707	913	3,246	538	12	162
South Milwaukee	2,190	1,048	49	1,063	67	831	115		31
Stanley	1,024	510	114	771		559	272		24
Stevens Point	3,136	1,474	42	1,318	223	785	302	9	52
Stoughton	1,438	593	181	1,240	153	737	350		44
Sturgeon Bay	1,319	653	182	870	56	575	239		27
Superior	10,295	3,905	67	6,941	805	4,829	1,289	18	212
Tomahawk	927	391	97	546	79	346	121		21
Two Rivers	2,286	1,067	39	889	102	572	215	132	30
Viroqua	750	335	107	768	72	484	219		30
Washington	2,446	1,084	391	916		640	297		27
Watertown	2,712	1,273	393	968		648	315	107	36
Wausau	772	332	100	757	279	1,230	411		61
Waupaca	816	375	91	676	90	448	188		25
Waupun	6,185	1,988	60	3,728	483	2,546	672	24	115
Wausotona	1,200	585	79	946	135	666	135		63
West Allis	3,127	1,368	62	1,900	239	1,463	248		20
Whitewater	777	107	59	460		321	139		

TABLE 50.—*School Finances—*

Location	EXPENDI				
	Total	Control	Instruction	Operation	Main-tenance
Totals.....	\$9,132,263.35	\$274,437.22	\$5,181,210.82	\$1,020,594.40	\$436,419.79
Antigo	\$162,944.17	\$2,889.92	\$34,231.83	\$10,406.66	\$13,250.44
Appleton	201,049.74	2,141.75	89,192.76	20,654.67	90,076.81
Ashland	88,170.84	3,414.77	56,125.44	12,084.18	3,297.51
Baraboo	45,407.60	1,186.79	29,924.32	9,100.66	3,124.04
Beaver Dam	41,265.92	2,269.27	24,671.26	8,205.83	1,859.11
Beloit	174,709.91	5,576.16	79,846.43	19,691.71	9,592.55
Berlin	72,814.01	890.83	16,635.56	2,988.79	1,442.01
Brodhead	21,378.19	565.00	9,454.80	2,374.55	706.03
Burlington	38,714.70	1,855.41	19,822.60	4,588.45	939.32
Chippewa Falls	54,398.19	3,367.75	37,846.28	7,680.78	2,597.27
Columbus	22,420.13	2,069.39	14,814.00	3,779.34	1,265.00
Oudahy	42,067.45	2,165.02	13,578.15	5,608.96	1,301.59
De Pere	11,639.73	321.93	8,054.77	1,910.44	916.12
Eau Claire	189,407.32	5,646.76	89,946.80	19,089.71	5,105.20
Edgerton	26,924.21	145.00	20,062.11	3,838.71	2,138.25
Elkhorn	22,805.67	1,673.77	11,522.72	3,808.51	897.22
Evansville	18,644.46	1,752.50	11,372.47	2,867.94	524.83
Fond du Lac	114,430.66	4,825.96	80,721.65	16,396.96	5,227.81
Fort Atkinson	43,906.32	2,528.14	23,171.23	5,481.22	2,960.17
Grand Rapids	100,869.71	3,585.41	38,669.64	13,054.59	4,096.68
Green Bay	172,613.81	6,166.10	110,533.59	22,768.01	10,527.42
Hayward	18,387.71	660.00	10,021.92	2,593.11	87.13
Horicon	17,135.39	104.92	11,097.55	2,353.70	557.30
Hudson	26,302.56	478.33	13,270.66	2,878.17	4,079.56
Janesville	108,591.27	4,080.50	61,667.32	15,010.66	2,424.91
Jefferson	28,578.82	1,446.74	16,284.29	2,975.48	1,043.99
Kaukauna	43,999.17	965.00	23,424.81	7,126.61	1,612.70
Kenosha	255,742.38	7,763.99	133,977.58	35,480.97	16,182.26
La Crosse	200,012.39	6,626.56	140,371.17	40,364.10	6,064.49
Ladysmith	37,051.42	2,618.08	17,065.40	5,946.47	1,516.47
Lake Geneva	42,077.84	2,389.64	22,939.11	7,753.02	4,389.39
Lake Mills	59,724.77	447.80	12,734.18	3,533.22	1,530.29
Madison	394,283.76	8,377.70	185,592.93	37,231.08	12,265.92
Manitowoc	97,529.75	5,065.65	66,452.97	15,343.63	3,677.73
Marinette	72,318.39	5,217.44	49,706.47	10,062.89	2,643.37
Marshfield	45,397.96	2,700.00	24,524.55	5,338.52	6,147.68
Mellen	17,558.24	1,439.26	10,236.23	3,818.79	1,458.00
Menasha	38,669.01	3,275.46	18,615.02	4,609.63	1,921.90
Menomonie	44,791.18	2,837.70	27,731.16	7,449.17	4,910.25
Merrill	47,892.19	2,276.05	34,191.94	7,238.43	1,895.99
Milwaukee.....	3,165,464.88	68,178.82	2,042,221.03	289,416.33	171,883.62
Mineral Point	22,120.19	1,914.93	13,971.01	2,425.37	719.80
Monroe	112,534.40	2,352.54	23,822.22	8,514.03	1,797.92
Neenah	42,980.90	3,287.39	25,902.84	8,066.52	3,833.63
New London	24,007.09	473.22	15,763.14	4,243.34	303.51
Oconomowoc	25,825.82	1,900.00	17,863.48	3,904.37	1,433.97
Oconto	38,856.00	472.18	25,433.69	5,635.59	2,083.05
Onalaska	8,905.57	482.40	5,816.12	1,280.60	752.97
Oshkosh	207,191.88	4,879.03	135,275.33	37,952.13	10,428.54
Park Falls	68,773.80	2,050.00	12,773.01	3,715.95	744.18
Peshtigo	14,875.41	420.05	10,350.95	1,779.87	788.31
Phillips	18,767.73	1,729.00	11,269.97	2,242.12	610.70
Platteville	40,515.91	2,626.21	20,741.36	5,183.14	3,120.90
Portage	128,526.22	2,558.04	22,667.39	4,319.65	500.00
Prairie du Chien.....	70,613.18	351.71	11,873.90	1,599.99	685.73

APPENDIX

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Cities—1917

EXPENSES		Teaching Salaries	RECEIPTS			
Miscellaneous	Outlays		Revenue	Non-Revenue	Balance	Total
\$77,216.39	\$2,039,384.76	\$4,216,094.08	\$3,068,067.72	\$7,587,755.99	\$2,032,896.40	\$12,679,740.11
\$2,990.49	\$99,174.83	\$25,880.95	\$56,404.76	\$78,457.96	\$35,229.60	\$170,092.32
2,789.12	77,194.63	70,564.94	5,243.25	134,118.32	69,416.60	208,778.17
442.06	12,856.88	43,704.24	6,263.88	75,595.73	11,166.25	93,025.86
663.79	1,408.00	24,861.45	30,242.95	39,502.54	157.52	69,903.01
655.85	3,604.60	20,498.57	10,624.06	36,340.50	4,013.30	50,977.86
1,521.96	58,481.10	63,924.90	9,599.24	153,963.38	65,852.19	229,414.81
911.77	49,955.06	14,305.69	10,352.63	109,967.73	25,098.25	145,408.66
308.72	7,967.09	8,507.96	501.24	15,819.90	5,100.00	21,421.14
250.36	11,258.56	16,996.21	7,140.91	29,346.73	4,900.00	41,887.64
1,256.11	1,650.00	29,668.26	18,343.47	53,615.91	.....	71,959.38
362.40	130.00	14,554.00	8,717.76	22,817.47	.....	31,535.23
677.74	18,735.99	12,371.65	5,870.97	37,181.23	8,500.00	51,592.20
163.87	272.60	7,560.32	5,205.46	11,507.46	.....	16,712.92
4,219.18	65,399.67	67,630.00	56,907.77	143,141.94	16,136.00	216,185.71
497.85	187.29	17,912.18	3,140.09	28,232.66	55.29	31,428.04
298.44	4,610.01	10,550.29	5,397.82	18,747.13	4,154.28	28,299.23
452.55	1,674.17	10,650.79	9,532.33	18,441.55	.....	27,973.88
1,013.18	7,245.10	65,731.66	31,199.06	103,189.03	2,105.53	136,493.62
999.54	8,735.97	21,016.03	656.18	41,614.36	1,635.78	43,906.32
1,060.01	40,406.88	28,008.24	2.58	60,920.88	47,748.88	108,672.34
5,118.91	17,499.78	83,992.25	1,920.99	140,718.55	34,278.87	176,918.41
75.55	.....	7,321.04	9,951.20	8,318.30	.....	18,269.50
249.70	2,772.22	9,220.66	531.14	15,845.07	1,000.00	17,376.21
595.84	.....	14,540.20	20,002.15	24,311.69	6,000.00	50,313.84
1,054.00	24,353.88	56,849.13	2,465.95	84,525.44	25,100.00	112,091.39
1,177.39	5,650.93	13,407.63	3,702.76	23,650.46	5,205.98	32,559.20
1,561.73	9,308.32	19,848.29	12,766.98	34,730.25	5,201.20	52,698.43
7,021.07	55,336.51	108,126.67	118,501.52	203,218.96	4,222.29	325,942.67
2,226.88	4,339.19	109,092.16	81,330.12	189,105.59	2,800.83	273,236.54
205.41	9,709.59	15,459.92	122.57	30,244.48	7,092.39	37,459.44
1,043.37	3,563.31	20,772.53	14,921.24	37,011.55	3,000.00	54,982.79
427.53	41,051.75	10,419.75	38,883.51	19,983.10	10,500.00	69,316.61
5,732.65	145,063.48	153,324.59	1,967.15	272,275.71	127,620.17	401,863.03
1,853.04	5,136.73	47,562.39	9,719.40	106,179.15	.....	115,886.55
3,738.72	949.50	40,023.84	.....	72,005.60	614.67	72,620.27
1,917.21	4,270.00	21,387.50	16,521.44	43,536.66	113.14	60,171.24
277.41	328.55	9,028.35	1,541.43	16,207.13	.....	17,748.56
615.03	9,361.97	16,541.53	34,922.02	35,382.99	15,616.00	85,921.01
1,862.90	.....	23,155.84	15,097.08	41,363.84	25,264.90	81,725.82
339.78	1,950.00	25,743.62	9,020.40	59,427.64	17.73	68,465.77
56,208.39	537,561.69	1,674,544.12	1,546,098.84	2,666,960.06	874,295.12	5,087,354.02
527.57	2,561.51	12,622.36	6,549.23	19,919.87	.....	26,469.10
2,450.79	73,596.90	15,804.52	68,120.71	48,259.59	15,350.99	131,731.29
1,043.82	1,246.65	20,795.34	2,947.74	45,143.99	.....	48,091.73
605.33	2,618.55	12,359.88	11,700.98	25,904.65	341.04	37,946.67
724.00	.....	15,806.05	8,288.45	18,701.75	8,835.04	35,825.24
330.10	4,946.39	18,168.65	7,728.63	30,663.68	10,460.35	48,852.66
386.14	187.34	4,463.32	3,793.97	8,148.45	47.34	11,969.76
2,703.52	15,953.23	103,902.41	54,238.88	203,436.57	45.00	257,720.45
625.04	43,865.62	11,172.34	678.15	20,856.24	48,000.00	69,534.39
177.14	1,359.09	8,425.00	2,025.91	14,628.17	.....	16,654.08
928.44	1,967.50	10,082.34	2,438.97	17,274.76	10.00	19,723.73
5,791.56	3,052.75	19,369.03	12,660.22	30,205.70	4,191.73	47,067.65
2,281.14	96,200.00	18,045.00	.....	36,486.34	96,200.00	132,686.34
427.62	55,674.21	10,131.00	7,624.63	17,028.51	68,376.50	93,029.64

TABLE 50.—*School Finances*—

LOCATION	EXPENDITURE				
	Total	Control	Instruction	Operation	Main-tenance
Racine.....	308,231.00	9,105.82	199,406.72	35,092.59	13,819.61
Reedsburg	25,882.87	2,155.00	16,831.09	3,348.54	1,671.49
Rhineland	42,730.27	2,853.70	27,916.03	9,313.80	2,436.84
Rice Lake	34,290.41	2,403.99	22,111.50	4,305.74	4,567.30
Ripon	63,930.18	2,183.06	19,974.11	5,055.37	1,162.94
River Falls	27,563.27	2,000.00	9,951.99	3,389.24	951.80
Sheboygan	162,350.52	5,365.44	114,626.16	16,758.26	6,558.60
South Milwaukee	35,123.30	2,313.39	22,702.77	6,894.93	1,691.06
Stanley	20,995.19	2,021.36	14,369.17	2,401.13	1,574.65
Stevens Point	53,926.71	3,474.23	36,588.00	10,190.62	2,164.42
Stoughton	83,112.73	2,134.21	29,582.23	8,258.50	2,985.64
Sturgeon Bay	24,061.83	430.00	18,066.37	3,808.85	746.81
Superior	326,802.62	9,192.76	201,259.62	39,659.38	12,477.69
Tomahawk	24,264.19	1,763.52	13,475.66	3,512.28	825.60
Two Rivers	33,188.96	1,539.05	20,743.37	5,509.45	1,942.96
Viroqua	23,823.84	307.59	15,346.77	4,562.74	3,263.41
Washburn	31,346.09	950.66	18,417.74	4,916.33	2,698.14
Watertown	102,619.62	3,405.68	26,566.36	7,906.12	2,804.19
Waukesha	101,345.84	3,691.09	49,528.08	7,892.64	4,427.94
Waupaca	27,277.52	975.86	15,917.44	3,495.16	771.22
Waupun	51,431.09	1,000.00	16,294.61	4,963.42	1,065.71
Wausau	114,378.86	4,787.30	81,948.42	17,319.01	2,760.73
Wauwatosa	54,611.09	2,844.45	23,024.09	6,394.49	2,567.77
West Allis	87,658.99	2,832.07	49,644.02	9,209.18	3,222.45
Whitewater	23,881.09	238.02	16,087.35	3,185.26	2,810.21

Cities, 1916-17—Continued.

EXPENSES		Teaching salaries	RECEIPTS			
Miscellaneous	Outlays		Revenue	Non- Revenue	Balance	Total
12,456.26	38,347.00	100,088.13	116,542.37	291,023.47	1,006.82	408,667.66
418.96	1,457.79	14,180.63	17,664.07	26,547.33	76.11	44,237.51
209.90	.....	22,859.48	5,023.99	42,754.97	.....	47,778.96
875.33	26.50	16,489.92	27,053.30	33,081.53	.....	60,084.53
544.24	35,010.46	17,429.13	542.77	36,706.36	26,823.24	64,072.37
264.93	11,005.31	8,718.18	582.66	17,776.24	10,000.00	28,308.90
3,852.60	15,089.44	86,443.99	80,172.37	172,021.93	1,951.31	254,145.51
158.70	1,337.45	21,274.64	11,849.12	23,965.87	.....	40,804.99
223.36	406.52	13,180.99	2,355.66	20,626.24	188.01	23,119.91
1,395.42	114.02	25,746.47	16,213.48	56,576.30	458.98	73,248.76
1,456.24	38,745.91	26,695.03	30,733.48	43,834.90	8,494.35	83,112.73
1,019.30	.....	13,547.74	9,949.43	26,072.13	177.58	36,190.14
6,635.35	57,577.82	164,606.48	94,653.24	338,019.84	6,651.28	439,324.36
877.14	3,810.00	10,891.98	6,233.88	24,103.55	.....	30,337.43
620.16	2,833.95	17,297.32	29,610.91	38,679.60	454.78	68,745.29
181.43	141.90	12,866.00	634.22	22,844.31	345.31	23,823.84
151.88	4,211.34	15,543.29	4,296.30	26,745.90	3,743.29	34,782.49
471.16	61,365.01	22,259.85	61,962.78	53,554.48	497.98	116,085.19
1,822.07	33,984.02	42,271.71	25,430.37	37,105.33	230,043.50	332,644.70
239.33	5,878.51	12,161.15	5,133.37	25,778.20	1,699.08	32,596.15
947.70	27,119.65	13,026.33	3,018.82	33,047.99	40,015.00	76,081.81
3,105.12	4,458.28	66,055.29	12,677.69	117,630.32	1,357.68	131,686.19
979.16	13,801.13	21,329.35	33,254.04	33,714.51	18.00	76,996.55
3,574.88	19,176.89	43,910.37	41,585.06	78,860.22	7,662.21	123,107.49
768.00	792.25	12,153.00	15,765.57	23,551.12	131.19	39,447.63

TABLE 51.—*Census and Enrollment—No. of Teachers—1917-18.*

Location	CENSUS			Per cent- age enroll. of census	ENROLLMENT							Total profes- sional workers in schools
	Total 4-20	1-14	14-18		Total enrolled	Kinder- gartens	Grades	High schools	Evening schools	Schools for the industries	Schools for deaf and blind	
Totals.....	334,868	148,121	38,629	56	182,119	21,462	128,684	31,470	6,089	919	508	5,884
Antigo	2,419	1,125	984	71	1,726	326	1,013	375	.....	.....	11	58
Appleton	5,094	2,522	720	49	2,799	449	1,798	587	.....	.....	17	116
Ashland	4,444	2,181	647	50	2,245	169	1,518	551	40	.....	7	70
Baraboo	1,469	682	178	75	1,086	52	730	314	.....	.....	.....	41
Beaver Dam	2,298	1,005	279	53	1,210	183	841	186	.....	.....	.....	38
Beloit	4,909	2,352	613	87	4,282	528	2,974	780	.....	.....	.....	121
Berlin	1,439	628	163	54	750	.....	586	164	.....	.....	.....	24
Brodhead	865	159	44	98	338	.....	232	103	.....	.....	.....	14
Burlington	972	545	140	67	833	106	357	183	.....	.....	.....	25
Chippewa Falls	2,814	1,137	330	48	1,352	76	869	407	.....	.....	.....	52
Columbus	565	278	70	97	551	59	327	165	.....	.....	.....	21
Cudahy	1,924	908	296	41	797	129	668	.....	.....	.....	.....	19
De Pere	857	405	103	33	290	52	150	78	.....	.....	.....	13
Eau Claire	5,714	2,845	733	54	3,161	264	2,243	611	.....	.....	43	118
Edgerton	892	385	99	75	668	66	400	202	.....	.....	.....	27
Elkhorn	369	142	50	.....	440	58	237	145	.....	.....	.....	17
Evansville	513	263	92	.....	536	50	328	158	.....	.....	.....	21
Fond du Lac	6,052	3,130	689	64	3,883	572	2,647	648	.....	.....	16	119
Fort Atkinson	1,138	560	165	84	954	99	660	195	.....	.....	.....	34
Grand Rapids	2,499	1,106	287	61	1,506	117	974	415	.....	.....	.....	58
Green Bay	9,305	4,315	1,135	48	4,470	106	3,436	875	.....	.....	52	151
Hayward	431	205	228	88	390	.....	284	96	.....	.....	.....	15
Horicon	573	415	64	83	477	80	298	99	.....	.....	.....	16
Hudson	753	356	95	77	599	57	371	171	.....	.....	.....	24
Janesville	3,423	1,459	549	66	2,273	196	1,512	565	.....	.....	.....	72
Jefferson	558	274	56	61	389	21	184	134	.....	.....	.....	20
Kaukauna	1,890	802	290	41	772	130	471	171	.....	.....	.....	31
Kenosha	9,069	4,441	989	60	5,479	894	4,081	569	.....	.....	15	171
La Crosse	8,923	3,769	1,097	56	5,009	582	3,822	1,092	.....	.....	13	151
Ladysmith	1,028	.....	.....	.....	75	75	547	210	.....	.....	.....	.....
Lake Geneva.....	731	398	115	.....	832	46	318	126	.....	.....	.....	33
Lake Mills	439	210	69	.....	490	533	3,896	1,122	.....	.....	.....	19
Madison	8,742	4,076	1,063	64	5,552	874	1,533	560	.....	.....	11	206
Manitowoc	5,550	2,324	701	53	2,497	256	1,711	486	.....	.....	.....	79
Marinette	4,902	1,882	624	50	2,460	77	647	235	.....	.....	7	71

Marshfield	2,223	976	263	43	965	60	441	88	7	36
Mellen	670	369	68	38	589	160	472	175		19
Menasha	2,391	1,009	330	34	807	100	733	274		30
Menomonie	1,370	627	202	81	1,107	194	839	327		33
Merrill	3,214	1,394	365	42	1,360	7,258	44,699	6,386		53
Milwaukee	126,321	54,096	13,451	46	58,463	53	315	180	118	1,612
Mineral Point	710	289	100	77	648	146	687	231		36
Monroe	1,244	574	171	86	1,064	189	702	277		22
Neenah	686	686	196	66	1,168	77	386	161		38
New London	1,279	617	164	51	644		429	186	11	24
Oconomowoc	726	350	99	85	615	123	543	233		24
Oconto	1,771	778	214	51	899		390	56		33
Onalaska	301	131	35	85	256	911	3,356	913		9
Oshkosh	9,519	4,218	1,173	55	5,198		594	120	18	173
Park Falls	801	430	95	89	714		817	118		21
Peshigo	486	201	71	89	432	61	404	108		12
Phillips	694	393	88	84	573		647	141		19
Platteville	1,322	621	161	60	704	112	536	246	6	30
Portage	1,689	615	214	55	894		333	140		23
Prairie du Chien	1,083	469	147	50	517	1,158	5,576	982		20
Reeds	13,411	6,905	1,576	53	7,793	46	498	320	24	243
Redburg	718	922	115	96	692	189	876	235		25
Rhineland	2,136	928	322	62	1,351	61	603	217		43
Rice Lake	1,407	611	169	63	891		611	191	10	36
Ripon	960	446	129	85	809	17	216	197	7	52
River Falls	594	269	105	66	390	817	3,289	643		17
Sheboygan	2,792	3,692	1,090	53	4,711	84	916	106	12	166
South Milwaukee	2,033	1,061	262	46	1,105		464	226		33
Stanley	964	431	69	69	630	238	906	823	6	24
Stevens Point	3,128	1,427	264	91	1,476	161	774	906		52
Stoughton	1,433	686	176	47	1,800	72	588	276		46
Sturgeon Bay	1,366	679	134	70	866	854	4,913	1,227		27
Superior	10,762	5,066	1,286	66	7,012	84	364	141	13	223
Tomahawk	906	419	66	69	689	100	515	192		22
Two Rivers	2,274	1,064	280	36	807	73	442	216		52
Viroqua	664	340	80		731		662	284		22
Washburn	1,661	236	84	61	946		637	328		30
Watertown	2,862	1,044	322	41	966	259	1,268	404	195	35
Waukegan	2,974	1,868	871	66	1,831	55	418	257		69
Waupaca	735	338	102	99	730	104	466	142		24
Waupun	748	402	113	96	712	463	2,445	623		26
Wausau	6,016	2,889	400	59	3,560	187	673	167	18	114
Wauwatosa	1,323	684	129	70	997	270	1,575	279		33
West Allis	3,442	1,606	361	68	2,124		314	132		70
Whitewater	743	252	106	60	446					20

TABLE 52—School Ex

Location	EXPEND				
	Total	Control	Instruction	Operation	Maintenance
Totals.....	\$10,024,094.86	\$295,093.71	\$5,410,081.35	\$1,230,147.34	\$487,727.05
Antigo	\$108,786.00	\$2,710.44	\$47,481.65	\$14,008.29	\$8,405.17
Appleton	216,184.19	1,926.00	96,851.50	26,225.55	12,833.03
Ashland	222,854.95	3,754.66	80,566.61	15,014.64	8,667.05
Baraboo	52,833.75	1,219.78	81,302.40	10,686.16	1,430.27
Beaver Dam	39,898.82	2,414.85	25,665.52	9,018.05	1,855.11
Beloit	228,096.06	6,025.59	86,878.74	30,224.37	8,067.36
Berlin	78,817.41	762.73	16,711.77	6,512.33	1,531.97
Brodhead	21,617.76	1,261.29	8,967.01	2,096.61	146.08
Burlington	40,539.54	1,962.76	20,510.68	3,945.48	1,905.85
Chippewa Falls	62,868.82	3,338.40	39,120.79	12,496.69	2,520.38
Columbus	25,177.43	2,139.29	15,323.81	4,713.56	1,675.98
Cudahy	48,774.28	2,563.49	15,244.30	6,315.16	4,888.00
De Pere	13,109.44	840.41	9,133.88	2,381.15	1,166.12
Eau Claire	153,968.67	5,632.28	95,011.81	22,004.84	6,208.28
Edgerton	29,333.32	145.00	21,168.74	4,836.80	1,818.34
Elkhorn	23,584.35	1,056.60	12,973.59	4,388.23	1,779.51
Evansville	27,201.38	1,879.51	13,604.30	2,564.60	840.33
Fond du Lac	123,566.86	5,255.18	87,892.06	18,477.31	5,624.96
Fort Atkinson	67,427.20	2,546.12	23,615.01	5,966.75	1,471.02
Grand Rapids	123,754.89	3,360.40	40,804.95	17,296.40	5,594.71
Green Bay	258,157.16	6,064.37	119,437.05	26,108.56	5,400.74
Hayward	17,669.67	835.00	10,877.10	2,546.44	3,191.59
Horicon	16,866.16	91.84	11,234.84	2,736.71	724.50
Hudson	107,746.63	1,661.69	17,211.57	3,337.47	802.96
Janesville	114,296.40	4,530.09	59,534.06	16,491.50	3,262.30
Jefferson	28,162.43	1,065.42	17,066.46	2,669.02	405.08
Kaukauna	45,887.02	980.00	25,900.06	7,516.81	3,013.35
Kenosha	292,720.32	9,031.51	152,854.86	37,429.06	8,130.73
La Crosse	200,844.90	8,271.09	141,724.51	32,468.78	7,118.96
Ladysmith					
Lake Geneva	47,865.89	2,435.00	24,173.00	7,750.08	1,266.85
Lake Mills	33,256.77	405.38	14,018.65	4,077.21	783.25
Madison	490,453.94	9,106.36	202,501.61	50,662.06	10,195.41
Manitowoc	105,928.93	5,359.55	70,152.37	17,300.99	7,866.80
Marinette	83,854.95	5,378.70	56,122.51	14,606.13	5,723.94
Marshfield	46,890.40	2,500.00	27,174.80	7,850.00	1,201.88
Mellen	18,095.03	1,142.70	12,260.91	3,903.16	525.05
Menasha	36,808.08	3,391.19	21,563.18	6,898.85	2,197.91
Menomonie	78,000.48	3,449.51	29,333.04	9,752.08	1,423.17
Merrill	56,865.59	2,644.53	36,599.96	11,799.25	3,590.05
Milwaukee	3,417,973.86	75,081.83	2,042,992.54	375,125.24	238,464.08
Mineral Point	25,494.60	2,076.23	14,816.70	3,515.67	2,340.58
Monroe	61,371.30	1,837.44	29,033.07	10,090.90	3,761.94
Neesah	48,047.66	1,853.30	29,200.44	9,862.73	4,649.16
New London	28,638.98	950.14	17,573.72	5,227.73	393.42
Oconomowoc	30,316.01	1,925.00	18,549.72	5,541.06	2,439.79
Oconto	41,941.15	1,904.09	21,232.57	6,656.77	476.53
Onalaska	8,889.23	1,427.70	5,276.84	1,265.72	563.83
Oshkosh	137,456.30	5,432.42	129,967.86	41,014.52	3,967.29
Park Falls	80,125.91	2,250.00	12,635.02	6,794.19	1,442.43
Peshigo	11,446.76	473.64	8,582.07	1,911.09	159.54
Phillips	19,386.20	945.00	13,171.29	2,739.98	478.36
Platteville	52,909.27	4,717.44	20,344.07	7,711.25	676.96
Portage	45,624.83	1,921.86	23,784.28	9,191.02	1,022.79
Prairie du Chien	63,068.52	420.00	14,792.33	3,940.14	1,348.86

APPENDIX

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nances—Cities, 1917-18

ITEMS		Teaching Salaries	RECEIPTS			
Miscellaneous	Outlays		Revenue	Non- revenue	Balance	Total
\$191,115.65	\$2,359,925.76	\$4,429,971.18	\$8,377,065.25	\$1,968,226.12	\$3,863,481.81	\$13,887,576.67
\$5,278.61	\$35,851.84	\$35,423.89	\$83,897.10	\$28,909.02	\$4,020.12	\$112,806.12
2,648.29	76,199.82	80,061.00	147,690.69	78,509.75	17,744.68	283,928.87
533.29	138,833.71	47,501.04	197,358.22	20,816.46	674.75	223,029.70
529.70	7,115.44	26,255.22	52,390.33	56.07	24,608.06	76,941.81
967.71	462.58	21,722.76	42,442.34	4,428.77	16,689.23	56,583.05
1,474.27	95,426.73	75,951.12	160,404.53	22,706.94	9,720.31	287,816.37
1,220.57	52,078.04	13,901.67	24,905.36	89.42	18,767.02	97,584.43
2,228.16	8,918.01	7,619.31	17,070.80	5,220.67	716.66	22,334.42
245.56	12,049.21	17,790.61	28,412.01	10,700.35	1,345.76	41,885.30
1,738.38	3,109.18	29,904.14	61,277.08	.....	16,469.45	78,888.27
440.04	900.75	14,322.81	29,949.15	.....	11,745.46	36,922.89
961.01	18,772.32	14,512.74	61,076.67	5,999.60	27,795.74	76,570.02
87.88	.....	7,063.35	12,844.40	.....	4,898.15	17,917.59
5,653.53	19,332.93	70,658.25	140,174.47	10,017.74	23,101.93	176,970.60
1,267.55	96.89	19,205.94	27,416.64	.....	2,587.15	31,920.47
25.00	3,361.42	11,008.59	20,711.17	3,246.89	5,867.30	29,451.62
346.88	7,965.76	11,264.64	25,310.84	2,042.92	9,560.15	36,761.53
1,873.62	4,442.83	69,272.62	161,061.00	5,396.82	81,898.97	205,434.83
1,249.15	32,586.15	21,135.66	44,396.18	23,103.36	72.29	67,490.49
1,171.60	55,024.83	29,383.79	73,960.30	44,332.75	2,340.79	126,095.68
1,562.51	99,563.98	92,453.85	164,343.47	107,125.78	17,616.69	275,773.85
249.74	.....	8,589.48	16,376.76	.....	3,568.68	21,258.85
469.51	1,558.76	9,534.16	16,836.44	260.93	472.08	17,338.19
267.65	84,465.29	15,156.84	43,408.62	78,561.02	38,254.29	146,000.92
1,742.69	23,734.76	42,000.17	86,315.29	27,386.94	2,906.95	117,262.35
1,212.27	5,714.23	15,055.52	22,692.79	5,602.76	4,113.50	32,275.93
595.44	7,881.86	22,409.96	40,279.19	6,756.25	9,847.68	55,734.70
8,712.56	76,571.60	124,772.69	235,884.40	32,463.69	45,828.06	338,548.38
6,347.77	4,918.77	102,670.97	220,558.95	2,962.84	95,921.04	296,765.94
1,166.90	10,569.06	22,277.25	39,049.24	7,500.00	12,038.30	59,404.19
442.81	13,528.47	12,151.91	20,454.08	10,260.87	7,061.02	40,306.79
6,256.10	211,732.40	165,632.81	307,346.24	201,000.00	25,471.57	515,925.51
2,273.93	3,475.29	50,719.21	114,801.53	15.85	26,757.25	132,686.18
2,018.67	.....	47,007.20	83,706.63	.....	153.56	94,006.57
799.61	7,364.11	25,419.80	46,927.75	.....	14,810.63	61,701.03
263.21	.....	11,158.50	18,591.44	.....	696.73	18,781.76
886.14	1,675.81	18,417.00	34,763.81	.....	45,407.73	82,015.81
1,882.43	32,680.25	24,644.13	46,669.38	1,832.52	7,167.63	85,168.41
325.48	1,906.25	26,867.83	50,134.19	3,863.88	17,696.06	74,561.65
54,389.04	631,821.13	1,702,462.06	2,883,444.49	825,896.56	2,218,356.33	5,631,230.19
312.55	2,432.92	13,580.57	27,736.41	4.00	6,594.72	32,069.32
2,289.82	14,358.13	25,644.03	57,285.05	4,500.00	19,610.64	80,961.94
1,350.35	1,181.67	22,862.80	49,762.43	.....	6,875.61	54,923.26
658.48	3,835.49	14,645.74	32,015.62	68.06	17,384.27	46,023.25
1,800.44	.....	15,726.80	26,077.34	.....	5,760.75	36,076.76
508.51	11,023.38	14,816.93	34,859.01	3,043.05	80,125.91	47,896.72
835.09	.....	4,671.16	9,171.93	40.45	3,407.34	12,296.57
7,084.21	.....	99,423.00	178,177.81	.....	41,250.08	228,706.38
1,966.59	54,729.30	11,429.52	23,228.55	57,064.35	967.58	81,083.49
126.42	194.00	6,624.37	12,663.46	.....	3,015.37	14,462.13
269.17	1,762.50	11,251.59	23,248.70	.....	4,838.50	24,204.70
2,709.55	16,750.00	16,596.63	31,908.62	21,750.00	7,191.09	60,100.36
244.45	6,890.43	18,480.69	27,682.58	10,932.13	.....	43,024.83
271.10	42,296.10	12,452.33	18,519.87	29,752.31	7,620.14	70,688.06

TABLE 49.—Census and Enrollment—No. of Teachers—*July 1916-17.*

Location	CENSUS			PERCENTAGE		ENROLLMENT						TEACHERS	
	Total 4-20	7 14	14-16	Public and parochial enroll. of census	Public School Enroll. of census	Total enrolled	Kinder- gartens	Grades	High schools	Evening schools	Schools for the industries and blind	Schools for deaf and blind	Total profes- sional workers in schools
Totals.....	335,485	144,973	37,686	55	73	183,054	21,655	129,826	31,082	5,561	953	491	5,805
Antigo.....	2,372	1,192	297	69	88	1,638	324	920	385	.....	.....	9	52
Appleton.....	5,663	2,491	689	49	77	2,748	594	1,742	489	.....	.....	13	112
Ashland.....	4,502	1,973	584	51	68	2,313	174	1,562	538	60	.....	9	69
Baraboo.....	1,456	754	200	77	86	1,126	51	755	320	.....	.....	.....	40
Beaver Dam.....	2,234	965	374	53	72	1,173	183	814	166	.....	.....	.....	36
Beloit.....	4,709	2,253	549	85	85	4,018	500	2,763	725	.....	.....	.....	114
Berlin.....	1,414	716	171	47	70	660	.....	517	443	.....	.....	.....	22
Broadhead.....	312	108	39	100	100	332	.....	231	101	.....	.....	.....	14
Burlington.....	1,115	539	121	56	83	628	98	363	172	.....	.....	.....	25
Chippewa Falls.....	2,956	1,258	369	46	74	1,347	.....	980	387	.....	.....	.....	51
Columbus.....	552	274	61	90	100	496	47	278	171	.....	.....	.....	21
Cudahy.....	1,799	850	246	44	77	788	125	663	.....	.....	.....	.....	20
De Pere.....	859	368	91	27	80	235	38	128	69	.....	.....	.....	12
Eau Claire.....	5,876	2,422	686	55	67	3,215	262	2,253	661	.....	.....	39	120
Edgerton.....	886	362	117	77	83	619	76	437	176	.....	.....	.....	27
Elkhorn.....	334	152	49	100	100	418	36	298	146	.....	.....	.....	18
Evansville.....	536	244	64	96	96	513	52	313	148	.....	.....	.....	19
Fond du Lac.....	5,698	2,553	639	67	79	3,823	607	2,629	577	.....	.....	10	118
Fort Atkinson.....	1,238	563	177	83	95	1,027	119	706	202	.....	.....	.....	34
Grand Rapids.....	2,423	1,079	260	61	84	1,489	109	958	422	.....	.....	.....	58
Green Bay.....	9,126	4,251	1,100	50	74	4,517	120	3,490	884	.....	.....	53	147
Hayward.....	476	237	68	89	89	442	.....	355	87	.....	.....	.....	15
Horton.....	612	427	112	77	89	476	57	314	105	.....	.....	.....	16
Hudson.....	817	362	112	82	97	665	62	422	191	.....	.....	.....	24
Janesville.....	3,419	1,456	437	69	77	2,361	274	1,517	570	.....	.....	.....	80
Jefferson.....	702	292	98	53	53	374	25	200	149	.....	.....	.....	21
Kaukauna.....	2,053	891	234	38	55	785	121	488	166	.....	.....	.....	30
Kenosha.....	8,821	4,169	961	57	78	5,068	713	3,770	569	.....	.....	16	144
La Crosse.....	9,250	3,831	1,067	56	76	5,176	498	3,681	989	.....	.....	8	154
Ladysmith.....	1,166	552	135	65	80	763	67	551	145	.....	.....	.....	28
Lake Geneva.....	986	449	123	85	85	887	67	574	196	.....	.....	.....	32
Lake Mills.....	538	251	61	91	98	489	45	326	118	.....	.....	.....	17
Madison.....	8,787	3,934	988	61	77	5,320	488	3,719	1,098	.....	.....	15	210
Manitowoc.....	5,372	2,161	621	45	67	2,423	378	1,476	569	.....	.....	.....	77
Marquette.....	5,196	2,555	691	49	68	2,547	216	1,847	478	.....	.....	6	70

Marshfield	2,232	361	70	45	76	1,014	87	685	226	6	37
Mellen	683	361	70	84	84	579	76	422	81	31	
Menasha	2,398	305	32	32	63	784	159	455	169	39	
Menomonee	1,490	631	228	78	93	1,156	95	781	280	53	
Merrill	2,902	1,320	374	52	71	1,498	221	948	329	1,670	
Milwaukee	126,571	53,251	13,306	47	67	59,155	7,650	44,985	6,411	109	
Mineral Point	721	378	96	79	96	572	80	182	182	7	
Monroe	1,248	571	147	88	93	1,091	148	729	214	34	
Neenah	1,665	719	201	70	75	1,164	168	43	279	23	
New London	1,219	584	158	53	88	646	59	426	151	23	
Oconomowoc	797	334	108	80	91	641	.....	455	186	24
Oconto	1,760	783	209	54	84	948	144	530	274	34	
Onalaska	286	122	39	86	86	247	.....	202	45	10
Oshkosh	9,856	4,400	1,143	54	76	5,339	951	3,447	927	168	
Park Falls	741	360	80	91	91	671	.....	556	115	21
Peabigo	516	216	79	97	97	500	.....	380	120	16
Phillips	696	299	91	83	83	577	89	384	104	19	
Platteville	1,394	621	161	59	61	829	.....	655	165	30
Portage	1,821	587	197	50	66	906	.....	589	217	29
Prairie du Chien	1,033	452	138	52	81	535	.....	401	134	18
Racine	13,015	6,031	1,484	59	76	7,635	1,171	5,374	1,018	244	
Reedsburg	742	363	106	97	100	616	57	392	197	41	
Rhineland	2,383	1,021	328	57	69	1,371	193	897	281	24	
Rice Lake	1,351	732	238	78	78	1,081	128	744	194	36	
Ripon	1,029	485	129	83	83	854	.....	670	176	32
River Falls	666	302	94	60	60	402	16	249	137	17	
Sheboygan	9,150	4,005	1,063	51	75	4,707	913	3,246	536	162	
South Milwaukee	2,190	1,048	239	49	75	1,063	67	881	115	31	
Stanley	1,024	510	114	75	85	1,771	.....	559	272	24
Stevens Point	3,136	1,474	369	42	73	1,318	222	785	302	52	
Stoughton	1,438	593	181	86	86	1,240	153	737	350	44	
Sturgeon Bay	1,319	653	162	66	88	870	56	575	239	27	
Superior	10,286	3,805	997	67	79	6,941	895	4,829	1,289	97	
Tomahawk	927	391	97	59	59	546	79	346	121	212	
Two Rivers	2,286	1,067	286	39	74	889	102	572	215	30	
Viroqua	750	335	107	100	100	768	72	484	212	20	
Washburn	1,593	722	194	58	75	916	.....	649	267	27
Watertown	2,446	1,084	321	89	67	968	.....	643	315	36
Waukesha	2,742	1,273	329	70	87	1,230	279	1,230	411	61	
Waupaca	772	332	100	96	96	757	64	441	252	22	
Waupun	816	375	91	88	83	676	90	448	188	25	
Wausau	6,185	1,968	418	60	71	3,728	486	2,546	672	115	
Wauwatosa	1,200	585	128	79	88	946	145	698	135	63	
West Allis	3,127	1,508	325	62	79	1,950	239	1,463	248	20	
Whitewater	777	338	107	59	59	460	.....	1,321	139	20



LIST OF PUBLICATIONS ISSUED DURING BIENNIAL PERIOD 1916-18.

- *Agencies of Supervision—Maybell Bush. 1917.
- Agriculture in the High School—H. N. Goddard. 1917.
- Biennial Report. 1914-1916.
- Directions to Candidates for State Teachers' Certificates—State Board of Examiners. 1916-1917 and 1917-1918.
- An Educational Survey of Janesville, Wisconsin—W. W. Theisen and others. 1918.
- First School Days of the Non-English Child—Maybell Bush. 1918.
- High School Library List—O. S. Rice and Bertha Bergold. 1917.
- *Illiteracy and Americanization—Amy Bronsky. 1917.
- *Memorial Day Annual—O. S. Rice, 1916. *1917.
- *Organization and Training of the Labor Supply in the Public Schools. H. L. Terry and H. N. Goddard.
- *Official School Directory 1916-17. *1917-18.
- Reading Circle Pamphlet—State Reading Circle Board O. S. Rice, Secretary.
- Rebinding of School Libraries—O. S. Rice. 1918.
- A Report on the Use of Some Standard Tests—W. W. Theisen. 1918.
- Requirements and Suggestions Relating to High Schools of Wisconsin. H. L. Terry and H. N. Goddard. 1917.
- State Graded School Course of Study. 1917.
- *Suggestive Outline in Woodwork and Drawing for Grades and High Schools—J. M. Dorrans. 1917.
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- Suggestive Outline of Work on Food Conservation for Home Economic Teachers—Cora Binzel. 1918.
- Suggestive Studies of School Conditions—Janet R. Rankin. 1916.
- Suggestions on the Teaching of Reading—Annie Reynolds. 1916.
- Supplementary Price List of School Textbooks—O. S. Rice. 1918.
- Teachers' Meetings in City Schools—C. P. Cary. 1916.
- *Textbook Bulletin—O. S. Rice. 1917.
- Township Library List—O. S. Rice and Bertha Bergold. 1916-18.
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- Wisconsin First Class Rural Schools. Requirements for Special State Aid—C. P. Cary. 1917.
- *Wisconsin's Overage Children—Janet R. Rankin. 1916.

* Out of print.